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## **Part III**

## **Department of Health and Human Services**

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**Centers for Medicare & Medicaid Services**

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**42 CFR Parts 412, 413, and 476  
Medicare Program; Prospective Payment  
System for Long-Term Care Hospitals:  
Implementation and FY 2003 Rates; Final  
Rule**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Centers for Medicare & Medicaid Services

#### 42 CFR Parts 412, 413, and 476

[CMS-1177-F]

RIN 0938-AK69

### Medicare Program; Prospective Payment System for Long-Term Care Hospitals: Implementation and FY 2003 Rates

**AGENCY:** Centers for Medicare & Medicaid Services (CMS), HHS.

**ACTION:** Final rule.

**SUMMARY:** This final rule establishes a prospective payment system for Medicare payment of inpatient hospital services furnished by long-term care hospitals (LTCHs) described in section 1886(d)(1)(B)(iv) of the Social Security Act (the Act). This final rule implements section 123 of the Medicare, Medicaid, and SCHIP [State Children's Health Insurance Program] Balanced Budget Refinement Act of 1999 (BBRA) and section 307(b) of the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 (BIPA). Section 123 of the BBRA directs the Secretary to develop and implement a prospective payment system for LTCHs. The prospective payment system described in this final rule replaces the reasonable cost-based payment system under which LTCHs are currently paid.

**EFFECTIVE DATE:** The provisions of this final rule are effective on October 1, 2002.

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## Acronyms

Because of the many terms to which we refer by acronym in this final rule, we are listing the acronyms used and their corresponding terms in alphabetical order below:

- APR-DRGs All patient-refined, diagnosis-related groups
- BBA Balanced Budget Act of 1997, Public Law 105-33
- BBRA Medicare, Medicaid and SCHIP [State Children's Health Insurance Program] Balanced Budget Refinement Act of 1999, Public Law 106-113
- BIPA Medicare, Medicaid, and SCHIP [State Children's Health Insurance Program] Benefits Improvement and Protection Act of 2000, Public Law 106-554
- CMGs Case-mix groups
- CMI Case-mix index
- CMS Centers for Medicare & Medicaid Services
- DRGs Diagnosis-related groups
- FY Federal fiscal year
- HCRIS Hospital Cost Report Information System
- HHA Home health agency

- HIPAA Health Insurance Portability and Accountability Act, Public Law 104-191
- IRF Inpatient rehabilitation facility
- LTC-DRG Long-term care diagnosis-related group
- LTCH Long-term care hospital
- MDCN Medicare Data Collection Network
- MedPAC Medicare Payment Advisory Commission
- MedPAR Medicare provider analysis and review file
- OSCAR Online Survey Certification and Reporting (System)
- ProPAC Prospective Payment Assessment Commission
- QIO Quality Improvement Organization (formerly Peer Review organization (PRO))
- SNF Skilled nursing facility
- TEFRA Tax Equity and Fiscal Responsibility Act of 1982, Pub. L. 97-248

## I. General Background

When the Medicare statute was originally enacted in 1965, Medicare payment for hospital inpatient services was based on the reasonable costs incurred in furnishing services to Medicare beneficiaries. Section 223 of the Social Security Act Amendments of 1972 (Pub. L. 92-603) amended section 1861(v)(1) of the Social Security Act (the Act) to set forth limits on reasonable costs for hospital inpatient services. Section 101(a) of the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) (Pub. L. 97-48) amended the Medicare statute to limit payment by placing a cap on allowable costs per discharge. Section 601 of the Social Security Amendments of 1983 (Pub. L. 98-21) added section 1886(d) to the Act that replaced the reasonable cost-based payment system for most hospital inpatient services. Section 1886(d) of the Act provides for a prospective payment system for the operating costs of acute care hospital inpatient stays, effective with hospital cost reporting periods beginning on or after October 1, 1983.

Although most hospital inpatient services became subject to the acute care hospital inpatient prospective payment system, certain specialty hospitals are excluded from that system. These hospitals included long-term care hospitals (LTCHs), rehabilitation and psychiatric hospitals, rehabilitation and psychiatric units of acute care hospitals, and children's hospitals. Cancer hospitals were added to the list of excluded hospitals by section 6004(a) of the Omnibus Budget Reconciliation Act of 1989 (Pub. L. 101-239).

Subsequent to the implementation of the acute care hospital inpatient prospective payment system, both the number of excluded hospitals and Medicare payments to these hospitals grew rapidly. Consequently, Congress enacted various provisions in the Balanced Budget Act (BBA) (Pub. L. 105-33), the Medicare, Medicaid, and SCHIP [State Children's Health Insurance Program] Balanced Budget Refinement Act of 1999 (BBRA) (Pub. L. 106-113), and the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 (BIPA) (Pub. L. 106-554) to provide for the development and implementation of a prospective payment system for the following excluded hospitals:

- Rehabilitation hospitals (including units in acute care hospitals).
- Psychiatric hospitals (including units in acute care hospitals).
- LTCHs.

Section 4422 of the BBA mandated that the Secretary develop a legislative proposal, for presentation to the Congress by October 1, 1999, for a case-mix adjusted LTCH prospective payment system under the Medicare program. This system was to include an adequate patient classification system that reflects the differences in patient resource use and costs among LTCHs. Furthermore, in developing the legislative proposal for the prospective payment system, the Secretary was to consider several payment methodologies, including the feasibility of an expansion of the acute care hospital inpatient prospective payment system (diagnosis-related group (DRG) based system) established under section 1886(d) of the Act.

In the interim, section 4414 of the BBA imposed national limits (or caps) on hospital-specific target amounts (that is, the annual per discharge limit) for these excluded hospitals until cost reporting periods beginning on or after October 1, 2002. At the same time that the Congress modified the payment system based on limits on target amounts, it also included a provision in the BBA to require the Secretary to develop a legislative proposal for establishing a prospective payment system for LTCHs.

With the passage of the BBRA in November 1999, in section 122, the Congress refined some policies of the BBA before the implementation of the prospective payment systems for LTCHs and psychiatric hospitals and units. Section 123 of the BBRA further requires that the Secretary develop a per discharge, DRG-based system for LTCHs and requires that this system be described in a report to the Congress by

October 1, 2001, and be in place by October 1, 2002. Section 307(b)(1) of BIPA modified the BBRA's requirements for the prospective payment system for LTCHs by mandating that the Secretary " \* \* \* shall examine the feasibility and the impact of basing payment under such a system on the use of existing (or refined) hospital diagnosis-related groups (DRGs) that have been modified to account for different resource use of long-term care hospital patients as well as the use of the most recently available hospital discharge data." Furthermore, section 307(b)(1) of BIPA provided that the Secretary " \* \* \* shall examine and may provide for appropriate adjustments to the long-term hospital prospective payment system, including adjustments to DRG weights, area wage adjustments, geographic reclassification, outliers, updates, and a disproportionate share adjustment \* \* \*." In the event that the Secretary is unable to implement the LTCH prospective payment system by October 1, 2002, section 307(b)(2) of BIPA requires the Secretary to implement a prospective payment system using the existing hospital DRGs, modified when feasible, to account for resource use by LTCHs.

(We note that, even though the LTCH prospective payment system in this final rule is effective for cost reporting periods that begin on or after October 1, 2002, we will not have computer system changes in place that are necessary to accommodate claims processing and payment under the prospective payment system until after January 1, 2003. As of October 16, 2002, a LTCH that is required to comply with the HIPAA Administrative Simplification Standards must submit electronic claims to the fiscal intermediary in compliance with 42 CFR 162.1002 and 45 CFR 162.1102, using the ICD-9-CM coding system, unless the LTCH obtains an extension in compliance with the Administrative Compliance Act (Pub. L. 107-105). Beginning October 16, 2003, LTCHs that obtained an extension and that are required to comply with the HIPAA Administrative Simplification Standards must start submitting electronic claims in compliance with the HIPAA regulations cited above, among others. We intend that, as of January 1, 2003, the fiscal intermediary will reconcile the payment amounts that have been made to LTCHs for all covered inpatient hospital services furnished to Medicare beneficiaries from cost reporting periods that begin on or after October 1, 2002 until the date of the systems implementation, with the amounts that are payable under the LTCH prospective payment

methodology. Since LTCHs will receive payment under the LTCH prospective payment system at the start of their first cost reporting periods that begin on or after October 1, 2002, only those LTCHs with cost reporting periods starting October 1, 2002 until the date of the systems implementation will experience the payment reconciliation necessitated by this differential period. We also emphasize that the claims submission procedure of using ICD-9-CM codes will not change following the systems implementation of the LTCH prospective payment system. A detailed discussion on the operational procedures for this differential period appears in sections VIII.H. and X.N. of this final rule.)

## II. Publication of Proposed Rulemaking

On March 22, 2002, we published a proposed rule in the **Federal Register** (67 FR 13416) that set forth the proposed Medicare prospective payment system for LTCHs as authorized under Public Law 106-113 and Public Law 106-554. In accordance with the requirements of section 123 of Public Law 106-113, as modified by section 307(b) of Public Law 106-554, we proposed to implement a prospective payment system for LTCHs to replace the current reasonable cost-based payment system under TEFRA. The proposed prospective payment system used information from LTCH patient records to classify patients into distinct DRGs based on clinical characteristics and expected resource needs. Separate payments would be calculated for each DRG with additional adjustments applied.

In the proposed rule and in this final rule, we discuss the development, policies, and implementation of the LTCH prospective payment system. These discussions in this final rule include the following:

- An overview of the current payment system for LTCHs (section III.).
- A discussion of the statutory requirements for developing and implementing a LTCH prospective payment system (section IV.).
- A discussion of research findings on LTCHs (section V.).
- A detailed discussion of the LTCH prospective payment system, including the patient classification system (section IX.), relative weights (section X.A.), payment rates (section X.B.), additional payments (section X.C.), and the budget-neutrality requirements (section X.F.) mandated by section 123 of Pub. L. 106-113.
- An analysis of the estimated impact of the LTCH prospective payment

system on the Federal budget and LTCHs (section XII.).

- Changes to existing regulations and the establishment of regulations in 42 CFR Chapter IV to implement the LTCH prospective payment system.

We designed the prospective payment system for LTCHs with the following objectives:

- To base the prospective payment system on an analysis of the best information and data available.
- To establish a payment model using our experience in implementing other prospective payment systems.
- To provide incentives to control costs and to furnish services as efficiently as possible.
- To base payment on clinically coherent categories and to appropriately reflect average resource needs across different categories.
- To minimize opportunities and incentives for inappropriately maximizing Medicare payments.
- To establish a system that is beneficiary centered by formulating procedures for quality monitoring.
- To develop a system that is administratively feasible.

We received a total of 52 timely items of correspondence containing multiple comments on the proposed rule. The major issues addressed by the commenters included: the criteria for determining the 25-day average length of stay for LTCHs; payment adjustments for area wage differences; payments for special cases of short stays and interrupted stays; and data sources used to compute the prospective payments. Summaries of the public comments received and our responses to those comments are set forth below under the appropriate subject heading.

## III. Overview of the Current Payment System for LTCHs

### *A. Exclusion of Certain Facilities From the Acute Care Hospital Inpatient Prospective Payment System*

Although payment for operating costs of most hospital inpatient services became subject to a prospective payment system under the Social Security Amendments of 1983 (Pub. L. 98-21), which added section 1886(d) to the Act, certain types of hospitals and units were excluded from that payment system. Section 1886(d)(1)(B) of the Act lists the following classes of excluded hospitals:

- Psychiatric hospitals and units.
- Rehabilitation hospitals and units.
- LTCHs.
- Children's hospitals.

Effective with cost reporting periods beginning on or after October 1, 1989,

cancer hospitals were added to this list by section 6004(a) of the Omnibus Budget Reconciliation Act of 1989 (Pub. L. 101-239).

The acute care hospital inpatient prospective payment system is a system of average-based payments that assumes that some patient stays will consume more resources than the typical stay, while others will demand fewer resources. Therefore, an efficiently operated hospital should be able to deliver care to its Medicare patients for an overall cost that is at or below the amount paid under the acute care hospital inpatient prospective payment system. In a report to the Congress, "Hospital Prospective Payment for Medicare (1982)," the Department of Health and Human Services stated that the "467 DRGs were not designed to account for these types of treatment" found in the four classes of excluded hospitals, and noted that "including these hospitals will result in criticism and their application to these hospitals would be inaccurate and unfair."

The Congress excluded these hospitals from the acute care hospital inpatient prospective payment system because they typically treated cases that involved stays that were, on average, longer or more costly than would be predicted by the DRG system. The legislative history of the 1983 Social Security Amendments stated that the "DRG system was developed for short-term acute care general hospitals and as currently constructed does not adequately take into account special circumstances of diagnoses requiring long stays." (Report of the Committee on Ways and Means, U.S. House of Representatives, to Accompany HR 1900, H.R. Rept. No. 98-25, at 141 (1983)). Therefore, these hospitals could be systemically underpaid if the same DRG system were applied to them.

Following enactment in April 1983 of the Social Security Amendments of 1983, we implemented the acute care hospital inpatient prospective payment system on October 1, 1983, including the initial publication in the **Federal Register** of the rules and regulations for the acute care hospital inpatient prospective payment system: the September 1, 1983 interim final rule (48 FR 39752) and the January 3, 1984 final rule (49 FR 234). Updates and modifications of the regulations have been published annually in the **Federal Register**. We also developed payment policy for hospitals that were seeking to be excluded from the acute care hospital inpatient prospective payment system. The regulations concerning exclusion of LTCHs from the acute care hospital inpatient prospective payment system

are found in 42 CFR Part 412, Subpart B.

#### *B. Requirements for LTCHs to be Excluded From the Acute Care Hospital Inpatient Prospective Payment System*

Under section 1886(d)(1)(B) of the Act, the prospective payment system for hospital inpatient operating costs set forth in section 1886(d) of the Act does not apply to several specified types of hospitals, including LTCHs, which are defined in section 1886(d)(1)(B)(iv)(I) of the Act as " \* \* a hospital which has an average inpatient length of stay (as determined by the Secretary) of greater than 25 days." Section 4417(b)(1)(B) of the BBA added section 1886(d)(1)(B)(iv)(II) to the Act, which also provides another definition of LTCHs: specifically, a hospital that was first excluded in 1986 that has an average inpatient length of stay (as determined by the Secretary) of greater than 20 days and has 80 percent or more of its annual Medicare inpatient discharges with a principal diagnosis of neoplastic disease in the 12-month cost reporting period ending in FY 1997.

Implementing regulations at § 405.471(c)(5) (now § 412.23(e)) require the facility to have a provider agreement with Medicare to participate as a hospital, and an average inpatient length of stay greater than 25 days as calculated under the following formula: the average length of stay is calculated by dividing the total number of inpatient days (excluding leave of absence or pass days) for all patients by the total number of discharges for the hospital's most recent complete cost reporting period. The determination of whether or not a hospital qualifies as an LTCH is based on the hospital's most recently filed cost report, or if a change in the hospital's average length of stay is indicated, by the same method for the immediately preceding 6-month period (§ 412.23(e)(3)). (Requirements for hospitals seeking classification as LTCHs that have undergone a change in ownership, as described in § 489.18, are set forth in § 412.23(e)(3)(iii).)

#### *C. Payment System Requirements Prior to the BBA*

Hospitals that are excluded from the acute care hospital inpatient prospective payment system under section 1886(d)(1)(B) of the Act are paid for inpatient operating costs under the provisions of Public Law 97-248 (TEFRA) that are found in section 1886(b) of the Act and implemented in regulations at 42 CFR part 413. Public Law 97-248 established payments based on hospital-specific limits for inpatient operating costs. A ceiling on payments

to hospitals excluded from the acute care hospital inpatient prospective payment system is determined by calculating the product of a facility's base year costs (the year on which its target reimbursement limit is based) per discharge, updated to the current year by a rate-of-increase percentage, and multiplied by the number of total current year discharges. (A detailed discussion of target amount payment limits under Public Law 97-248 can be found in the September 1, 1983 final rule published in the **Federal Register** (48 FR 39746).)

The base year for a facility varied, depending on when the facility was initially determined to be a prospective payment system-excluded provider. The base year for facilities that were established before the implementation of Public Law 97-248 was 1982, when Public Law 97-248 was enacted. For facilities established after implementation of Public Law 97-248 (section 1886(b) of the Act), we originally provided in the regulations for payment to these facilities for their full "reasonable" costs for their first 3 cost reporting years, and allowed the facilities to choose which of those years would be used in the future to determine their target limit. This "new provider" period was later shortened to 2 cost reporting years (§ 413.40(f)(1) (1992)), and we designated the second cost reporting year as the cost reporting year used to determine the hospital's per discharge target amount.

Excluded facilities whose costs were below their target amounts received bonus payments equal to the lesser of half of the difference between costs and the target amount, up to a maximum of 5 percent of the target amount, or the hospital's costs. For excluded facilities whose costs exceeded their target amounts, Medicare provided relief payments equal to half of the amount by which the hospital's costs exceeded the target amount up to 10 percent of the target amount. Excluded facilities that experienced a more significant increase in patient acuity could also apply for an additional amount under the regulations for Medicare exception payments (§ 413.40(d)).

#### *D. Effects of the Current Payment System*

Use of postacute care services has grown rapidly in recent years since the implementation of the acute care hospital inpatient prospective payment system. The average length of stay in acute care hospitals has decreased, and patients are increasingly being discharged to postacute care settings such as LTCHs, skilled nursing facilities

(SNFs), home health agencies (HHAs), and inpatient rehabilitation facilities (IRFs) to complete their course of treatment. The increased use of postacute care providers, including hospitals excluded from the acute care hospital inpatient prospective payment system, has resulted in the rapid growth in Medicare payments to these hospitals in recent years. In addition, there has been a significant increase in the number of LTCHs. In 1991, there were 91 LTCHs; in 1994, 155 LTCHs; in 1999, 225 LTCHs; in December 2000, 252 LTCHs; and in November 2001, 270 LTCHs. Payments to postacute care providers were among the fastest growing providers under the Medicare program throughout the 1990s. (Prospective Payment Assessment Commission (ProPAC) June 1996 Report to Congress, p. 91.)

LTCHs have experienced faster growth in the number of facilities and Medicare program payments than any other category of prospective payment system-excluded provider. In its June 1996 Report to Congress, ProPAC found that, from 1990 to 1993, payment to rehabilitation facilities rose about 25 percent per year, while payments to LTCHs increased 33 percent annually (p. 92). ProPAC also found that, from 1991 to 1995, the number of rehabilitation facilities increased 21 percent (from 852 in 1991 to 1,029 in 1995), while the number of LTCHs increased 93 percent (from 91 in 1991 to 176 in 1995) (p. 93). The best available Hospital Cost Report Information System (HCRIS) data indicate \$398 million in payments for inpatient operating services to 105 LTCHs in FY 1993 and \$1.05 billion in payments for inpatient operating services to 206 LTCHs in FY 1998. This amount represents more than a 96-percent increase in the number of LTCHs and a 164-percent increase in payments to LTCHs in 5 years.

In its March 1999 Report to Congress, the Medicare Payment Advisory Commission (MedPAC) (formerly ProPAC) stated that: "[The] TEFRA system has remained in effect longer than expected partly because of difficulties in accounting for the variation in resource use across patients in exempted facilities. The unintended consequences of sustaining that system have been a steady growth in the number of prospective payment system-exempt facilities and a substantial payment inequity between older and newer facilities. In particular, the payment system encouraged new exempt facilities to maximize their costs in the base year to establish high cost limits. Once subject to its relatively high

limit, a recent entrant could reduce its costs below its limit, resulting in reimbursement of its full costs plus bonus payment. By contrast, facilities that existed before they became subject to TEFRA could not influence their cost limits. Given the relatively low limits of older facilities, they are more likely to incur costs above their limits and thus receive payments less than their costs." (p. 72)

To address concerns regarding the historical growth in payments and the disparity in payments to existing and newly excluded hospitals and units, the BBA mandated several changes to the existing payment system. These changes are outlined in section IV. of this preamble.

#### *E. Research and Discussion of a Prospective Payment System for LTCHs Prior to the BBA*

Section 603(a)(2)(C)(ii) of Public Law 98-21 required the Secretary to include the results of research studies on whether and how excluded hospitals and units can be paid on a prospective basis, in the 1985 Report to Congress on the Impact of Prospective Payment Methodology. HCFA (now CMS) undertook and funded a wide range of research projects that resulted in 1987 in a Report to Congress entitled "Developing a Prospective Payment System for Excluded Hospitals." In that report, the Secretary presented an examination of the then current state of the four classes of excluded hospitals and units and offered recommendations for the development of a prospective payment system. "Long-term" or "chronic disease" hospitals, the report noted, "are the least understood of the excluded hospital types" (p. 3-51).

The following information was clear—there were a relatively small number of facilities (94 at that time); LTCHs were not dispersed throughout the country and, therefore, potential long-term care patients were receiving necessary care elsewhere; LTCHs, as generally defined by the greater than 25-day average length of stay, constituted a diverse set that closely resembled other hospitals, both included (acute care) and excluded (psychiatric, rehabilitation, and children's) under the acute care hospital inpatient prospective payment system (pp. 3-51 through 3-63). The Report concluded with the following discussion: "Because this class of hospitals treats a very heterogeneous patient population and does not share a common set of facility characteristics, the development of a separate classification system for prospective payment purposes would appear to be both infeasible and

undesirable. At the same time, as part of HCFA's [now CMS'] impact analysis, we were investigating the feasibility of including LTCHs under the current prospective payment system, where their cases would be expected to be paid predominantly under the prospective payment system outlier policy." (pp. 3-63 through 3-64)

The 1987 report further noted that present and future research on LTCHs would focus on acquiring a broader understanding of LTCHs, long-term care patients, and other treatment settings and on the preliminary financial impact of a prospective payment system on both LTCHs and the Medicare system. An initial inquiry was also planned "into the role of those hospitals as a component of the continuum of care between acute care hospitals and skilled nursing facilities, as a general first step in developing a classification system for patients in these facilities \* \* \*" (p. 3-54).

ProPAC's March 1996 Report to Congress endorsed the concept of prospective payment systems for all postacute services, emphasizing consistent payment methods across all classes of facilities in order to encourage provider efficiency (p. 75). ProPAC's extensive analysis of "patients using postacute care providers and in these providers' treatment patterns" based on FY 1994 data discussed in the June 1996 Report to Congress, concluded that "[a]lthough there was significant overlap in the hospital assigned DRGs across settings, other patient characteristics, such as medical complexity or functional status, may influence which patients use a particular site" (p. 110).

In ProPAC's March 1, 1997 report, ProPAC's Recommendation 33, entitled "Coordinating Post-Acute Care Provider Payment Methods," stated that "the Commission urges the Congress and the Secretary to consider the overlap in services and beneficiaries across postacute care providers as they modify Medicare payment policies" (p. 60).

The passage of Public Law 105-33 (the BBA) provided for the establishment of separate and distinct prospective payment systems for postacute care providers: SNFs (section 4432(a)), IRFs (section 4421), and HHAs (section 4603(b)). In addition, the Congress directed the Secretary to develop a legislative proposal to pay LTCHs prospectively as well (section 4422).

#### IV. Requirements of the BBA, BBRA, and BIPA for LTCHs

##### A. Provisions of the Current Payment System

###### 1. BBA

The BBA amendments to section 1886(b) of the Act significantly altered the payment provisions for excluded hospitals and units and also added other qualifying criteria for certain hospitals excluded from the acute care hospital inpatient prospective payment system (sections 4411 to 4419). Provisions of these amendments that related to the current payment system were explained in detail and implemented in the acute care hospital inpatient prospective payment system final rule published in the **Federal Register** on August 29, 1997 (62 FR 45966).

Section 4411 of the BBA amended section 1886(b)(3)(B) of the Act and restricted the rate-of-increase percentages that are applied to each provider's target amount so that excluded hospitals and units experiencing lower inpatient operating costs relative to their target amounts receive lower rates of increase.

Section 4412 of the BBA amended section 1886(g) of the Act to establish a 15-percent reduction in capital payments for excluded psychiatric and rehabilitation hospitals and units and LTCHs, for portions of cost reporting periods occurring during the period of October 1, 1997, through September 30, 2002.

Section 4413(b) of the BBA amended section 1886(b)(3) of the Act to permit certain LTCHs to elect a rebasing of the target amount for the 12-month cost reporting period beginning during FY 1996.

Section 4414 of the BBA amended section 1886(b)(3) of the Act to establish caps on the target amounts for excluded hospitals and units at the 75th percentile of target amounts for similar facilities for cost reporting periods beginning on or after October 1, 1997, through September 30, 2002. These caps on the target amounts apply only to psychiatric and rehabilitation hospitals and units and LTCHs. Payments for these excluded hospitals and units are based on the lesser of a provider's cost per discharge or its hospital-specific cost per discharge, subject to this cap.

Section 4415 of the BBA amended section 1886(b)(1) of the Act by revising the percentage factors used to determine the amount of bonus and relief payments, and establishing continuous improvement bonus payments for cost reporting periods beginning on or after October 1, 1997 for hospitals and units

excluded from the acute care hospital inpatient prospective payment system that meet specified criteria. If a hospital is eligible for the continuous improvement bonus, the continuous improvement bonus payment is equal to the lesser of: (1) 50 percent of the amount by which operating costs are less than expected costs; or (2) 1 percent of the target amount.

Sections 4416 and 4419 of the BBA amended section 1886(b) of the Act to establish a new framework for payments for new excluded providers. Section 4416 added a new section 1886(b)(7) to the Act that established a new statutory methodology for new psychiatric and rehabilitation hospitals and units and LTCHs. Before this change, new hospitals excluded from the acute care hospital inpatient prospective payment system were exempted from the target amount per discharge ceiling until the end of the first cost reporting period ending at least 2 years after they accepted their first patient. This new provider "exemption" was eliminated from all classes of excluded providers except children's hospitals for cost reporting periods beginning on or after October 1, 1997, by section 4419(a) of the BBA. Under section 4416, payment to these new excluded providers for their first two cost reporting periods is limited to the lesser of the operating costs per case, or 110 percent of the national median of target amounts, as adjusted for differences in wage levels, for the same class of hospital for cost reporting periods ending during FY 1996, updated to the applicable period.

It is important to note that before enactment of the BBA, the payment provisions for excluded hospitals and units applied consistently to all classes of excluded providers (that is, psychiatric, rehabilitation, long-term care, children's, and cancer). However, effective for cost reporting periods beginning on or after October 1, 1997, there are specific payment provisions for certain classes of excluded providers, as well as modifications for all excluded providers.

Section 4417 of the BBA specified that a hospital that was classified by the Secretary on or before September 30, 1995, as an excluded LTCH must continue to be so classified, notwithstanding that it is located in the same building, or on the same campus, as another hospital.

Section 4418 of the BBA amended section 1886(d)(1)(B)(v) of the Act, providing an additional category of hospitals that could qualify as cancer hospitals for purposes of exclusion from the acute care hospital inpatient prospective payment system.

###### 2. BBRA

With the enactment of the BBRA of 1999, the Congress refined some of the policies mandated by the BBA for hospitals excluded from the acute care hospital inpatient prospective payment system. The provisions of the BBRA, which amended section 1886(b)(3)(H) of the Act relating to the current payment system for excluded hospitals, were explained in detail and implemented in the acute care hospital inpatient prospective payment system interim final rule published in the **Federal Register** on August 1, 2000 (65 FR 47026) and in the acute care hospital inpatient prospective payment system final rule also published on August 1, 2000 (65 FR 47054).

Section 4414 of the BBA provided for caps on target amounts for excluded hospitals and units for cost reporting periods beginning on or after October 1, 1997. Section 121 of the BBRA amended section 1886(b)(3)(H) of the Act to provide for an appropriate wage adjustment to these caps on the target amounts for existing psychiatric and rehabilitation hospitals and units and LTCHs, effective for cost reporting periods beginning on or after October 1, 1999 through September 30, 2002.

Section 122 of the BBRA provided for an increase in the continuous improvement bonus for eligible LTCHs and psychiatric hospitals and units for cost reporting periods beginning on or after October 1, 2000 and before September 30, 2002.

###### 3. BIPA

Two provisions of the BIPA that amended section 1886(b)(3) of the Act were directed at LTCHs. Section 307(a) of the BIPA provided for a 2-percent increase to the wage-adjusted 75th percentile cap on the target amount for existing LTCHs, effective for cost reporting periods beginning during FY 2001. Section 307(a) of the BIPA also provided a 25-percent increase to the hospital-specific target amounts for existing LTCHs for cost reporting periods beginning in FY 2001, subject to the wage-adjusted national cap.

##### B. Provisions for a LTCH Prospective Payment System

###### 1. BBA

In section 4422 of the BBA, the Congress mandated that the Secretary develop a legislative proposal for a case-mix adjusted prospective payment system for LTCHs under the Medicare program, for submission by October 1999 based on consideration of several payment methodologies, including the feasibility of expanding the current

DRGs and the prospective payment system currently in place for acute care hospitals.

## 2. BBRA

Section 123 of the BBRA specifically requires that the prospective payment system for LTCHs be designed as a per discharge system with a DRG-based patient classification system that reflects the differences in patient resources and costs in LTCHs while maintaining budget neutrality. Section 123 also requires that a report be submitted to the Congress describing the system design of the mandated LTCH prospective payment system no later than October 1, 2001, and that the system be implemented for cost reporting periods beginning on or after October 1, 2002.

## 3. BIPA

The BIPA reiterated the dates of implementation of the LTCH prospective payment system set forth in the BBRA. Section 307(b)(1) of the BIPA also directs the Secretary to examine the following specific payment adjustments: adjustments to DRG weights, area wage adjustments, geographic reclassification, outliers, updates, and a disproportionate share adjustment. Furthermore, if the Secretary is unable to implement the prospective payment system by October 1, 2002, section 307(b)(2) of the BIPA mandates that a default LTCH prospective payment system be implemented, based on existing DRGs, modified where feasible to account for the specific resource use of long-term care patients.

## V. Research and Data Supporting the Establishment of the LTCH Prospective Payment System

### A. Legislative Requirements

Section 4422 of the BBA required us to formulate a legislative proposal on the development of a prospective payment system for LTCHs for submission to the Congress by October 1, 1999. To prepare for this proposal, we awarded a contract to The Urban Institute (Urban) following the enactment of the BBA for a multifaceted analysis of LTCHs, including a description of facilities and patients, as well as exploration of a variety of classification and payment system options.

In section 123(a) of the BBRA, the Congress mandated a per discharge, DRG-based model for the prospective payment system for LTCHs. Our basic objective remained unchanged—to arrive at a clearer understanding of the universe of LTCHs in relation to facility

characteristics, beneficiary utilization, and beneficiary characteristics such as diagnoses, treatment, and discharge patterns.

Under the terms of our original contract with Urban, 3M Health Information Systems (3M) was subcontracted to provide an analysis and assessment of alternative classification systems for use in LTCHs in keeping with variables such as treatment patterns, patient demographics, and diagnoses and procedure codes for patients at LTCHs and acute care hospitals.

After the enactment of section 123 of the BBRA, we instructed 3M to limit its analyses to several DRG-driven classification systems, using the database constructed by Urban describing LTCHs, patients at LTCHs, and patients with the same diagnoses as LTCH patients treated in other facilities. We also contracted with 3M to develop and analyze the data necessary for us to design and develop the Medicare LTCH prospective payment system based on DRGs.

### B. Description of Sources of Research Data

The records for all Medicare hospital inpatient discharges (including discharges for LTCHs) are contained in the Medicare provider analysis and review file (MedPAR), which includes patient demographics (age, gender, race, and residence zip code), clinical characteristics (diagnoses and procedures), and hospitalization characteristics. (Beneficiary data were encrypted to prevent the identification of specific Medicare beneficiaries.) The Medicare cost report data constitute the HCRIS, and includes information on facility characteristics, utilization data, and cost and charge data by cost center.

The 1997 Online Survey Certification and Reporting (OSCAR) system data provided information from the State survey and certification process to identify and characterize providers that participate in Medicare and Medicaid and include a list of all hospitals that were designated as LTCHs by Medicare. OSCAR data included the number of employees of various types and the number of different types of beds and care units, as well as variables on certification date, type of control, geographic region, and hospital size.

### C. The Universe of LTCHs

#### 1. Background Issues

LTCHs typically furnish extended medical and rehabilitative care for patients who are clinically complex and have multiple acute or chronic

conditions. Generally, Medicare patients in LTCHs have been transferred from acute care hospitals and receive a range of “postacute care” services at LTCHs, including comprehensive rehabilitation, cancer treatment, head trauma treatment, and pain management. (MedPAC March 1999 Report to Congress, p. 95.) A LTCH must be certified as an acute care hospital that meets criteria set forth in section 1861(e) of the Act in order to participate as a hospital in the Medicare program. Generally, under Medicare, hospitals are paid as LTCHs if they have an inpatient average length of stay greater than 25 days.

LTCHs are a heterogeneous group of facilities ranging from old tuberculosis and chronic disease hospitals to newer facilities designed primarily to care for ventilator-dependent patients. They are unevenly distributed across the United States, with one-third (72 of 203 in 1997) located in Massachusetts, Texas, and Louisiana. As of 1997, 203 facilities were determined by Medicare to be LTCHs; by early 2000, 239 facilities were determined by Medicare to be LTCHs; and as of November 2001, OSCAR had data on 270 LTCHs.

LTCHs constitute a relatively small provider group in the Medicare program and have not been widely studied. Only limited information has been published about their characteristics in terms of types of patients served and resources used. As stated earlier in section V.A. of this preamble, the primary goal of the initial research contract with Urban was to increase our knowledge about LTCHs and their patients. In addition to describing the providers and patients, the study was expected to provide insight into the ways in which LTCHs differ from other Medicare postacute care providers. In the following summary and tables, we provide a description of Urban's findings that formed the basis for the design of the prospective payment system for LTCHs presented in the March 2002 proposed rule and in this final rule.

#### 2. General Medicare Policies

Inpatient stays at LTCHs are covered under the Medicare Part A hospital benefit and include room and board, medical and nursing services, laboratory tests, X-ray, pharmaceuticals, supplies, and other diagnostic or therapeutic services (§§ 409.10 and 412.50). LTCHs can offer specialized services (for example, physical rehabilitation or ventilator-dependent care) or can provide more generalized services (for example, chronic disease care).

Hospital services are covered for up to 90 days during a Medicare-defined



“benefit period,” which is a period that begins with admission of a Medicare beneficiary as an inpatient to an acute care or other hospital and ends when the beneficiary has spent 60 consecutive days outside of an inpatient facility (§ 409.60). There are 60 additional covered lifetime reserve days that may be used over a beneficiary’s lifetime. One inpatient deductible payment (\$792 in calendar year 2002) is required for each benefit period, so a beneficiary generally does not have to make a new deductible payment for a LTCH stay unless the LTCH stay is not preceded by another hospital stay. However, a beneficiary with a long LTCH stay is subject to a coinsurance payment (\$198 in calendar year 2002) for days 61 through 90 of hospital use during a benefit period. For the lifetime reserve days, a Medicare beneficiary is subject to a daily coinsurance amount (\$396 in calendar year 2002) (§ 409.61).

LTCHs must meet State licensure requirements for acute care hospitals and must have a provider agreement with Medicare in order to receive Medicare payment. Fiscal intermediaries verify that LTCHs meet the required average length of stay of greater than 25 days.

#### 3. Exclusion From the Acute Care Hospital Inpatient Prospective Payment System

As discussed more fully in section III.B. of this preamble, LTCHs were excluded from the FY 1984 implementation of the acute care hospital inpatient prospective payment system and continued to be paid based on their cost per discharge, subject to per discharge limits.

#### 4. Geographic Distribution

Overall, 203 LTCHs filed Medicare claims in 1997. This was the data set used by Urban for its analysis of the

universe of LTCHs that formed the basis for policies we proposed in our proposed rule on March 22, 2002 (67 FR 13416). This number translates into an average of approximately one facility per 200,000 Medicare enrollees. As can be seen in Chart 1, LTCHs were not (and are still not) distributed across all States in proportion to the number of Medicare enrollees in those States. They were unevenly distributed across the United States, with one-third (72 of 203) located in Massachusetts, Texas, and Louisiana. These three States together accounted for 36 percent of the LTCHs, but only fewer than 10 percent of Medicare enrollees. Furthermore, 13 small States have no LTCHs, although they accounted for approximately 7 percent of Medicare enrollees. In contrast, the three largest Medicare States (California, Florida, and New York) accounted for 24.1 percent of Medicare enrollees together, but only 13.8 percent of LTCHs.

CHART 1.—PERCENTAGE DISTRIBUTION OF NUMBER OF LONG-TERM CARE HOSPITALS (LTCHS), MEDICARE ENROLLEES, AND CERTIFIED BEDS, BY STATE, 1997

State	Number of LTCHs	Percent of LTCHs	Number of medicare enrollees	Percent of medicare enrollees	Number of certified beds	Percent of certified beds
Alabama .....	1	0.5	696,586	1.8	191	1.0
Alaska .....	0	0.0	38,570	0.1	0	0.0
Arizona .....	4	2.0	667,226	1.7	187	1.0
Arkansas .....	0	0.0	453,195	1.1	0	0.0
California .....	12	5.9	3,920,674	9.9	1,304	7.1
Colorado .....	4	2.0	464,299	1.2	277	1.5
Connecticut .....	4	2.0	531,805	1.3	716	3.9
Delaware .....	0	0.0	111,171	0.3	0	0.0
District of Columbia .....	1	0.5	80,028	0.2	23	0.1
Florida .....	11	5.4	2,853,420	7.2	805	4.4
Georgia .....	6	3.0	915,577	2.3	557	3.0
Hawaii .....	1	0.5	163,217	0.4	13	0.1
Idaho .....	0	0.0	163,303	0.4	0	0.0
Illinois .....	5	2.5	1,701,123	4.3	703	3.8
Indiana .....	11	5.4	877,656	2.2	434	2.4
Iowa .....	0	0.0	498,288	1.3	0	0.0
Kansas .....	3	1.5	406,752	1.0	74	0.4
Kentucky .....	1	0.5	633,802	1.6	337	1.8
Louisiana .....	19	9.4	622,805	1.6	1,288	7.0
Maine .....	0	0.0	218,265	0.6	0	0.0
Maryland .....	4	2.0	651,710	1.7	465	2.5
Massachusetts .....	17	8.4	991,641	2.5	3,077	16.8
Michigan .....	3	1.5	1,435,420	3.6	280	1.5
Minnesota .....	2	1.0	669,708	1.7	313	1.7
Mississippi .....	2	1.0	428,729	1.1	65	0.4
Missouri .....	3	1.5	888,959	2.3	317	1.7
Montana .....	0	0.0	139,392	0.4	0	0.0
Nebraska .....	1	0.5	263,287	0.7	25	0.1
Nevada .....	3	1.5	225,152	0.6	106	0.6
New Hampshire .....	0	0.0	170,031	0.4	0	0.0
New Jersey .....	3	1.5	1,239,890	3.1	212	1.2
New Mexico .....	2	1.0	231,517	0.6	86	0.5
New York .....	5	2.5	2,780,994	7.0	1,262	6.9
North Carolina .....	1	0.5	1,129,329	2.9	59	0.3
North Dakota .....	0	0.0	107,628	0.3	0	0.0
Ohio .....	7	3.4	1,766,266	4.5	653	3.6
Oklahoma .....	8	3.9	523,358	1.3	294	1.6
Oregon .....	0	0.0	500,035	1.3	0	0.0
Pennsylvania .....	6	3.0	2,183,850	5.5	412	2.3
Rhode Island .....	1	0.5	177,247	0.4	700	3.8
South Carolina .....	2	1.0	562,732	1.4	0	0.0
South Dakota .....	0	0.0	123,401	0.3	211	1.2
Tennessee .....	6	3.0	838,357	2.1	210	1.1
Texas .....	36	17.7	2,275,673	5.8	1,818	9.9
Utah .....	1	0.5	204,525	0.5	39	0.2
Vermont .....	0	0.0	89,821	0.2	0	0.0
Virginia .....	3	1.5	893,602	2.3	664	3.6
Washington .....	2	1.0	742,589	1.9	97	0.5
West Virginia .....	0	0.0	349,684	0.9	0	0.0
Wisconsin .....	1	0.5	806,951	2.0	34	0.2
Wyoming .....	1	0.5	65,699	0.2	3	0.0
Total .....	195	100.00	36,322,068	100.00	18,311	100.00

Source: 1997 Online Survey Certification and Reporting System (OSCAR).

Although the distribution of certified beds generally tracked the distribution of LTCHs across States, there is not always a direct relationship between the number of LTCHs and the bed capacity in a given State. For instance, Massachusetts had only 8.4 percent of LTCHs, but 16.8 percent of Medicare-certified beds. In contrast, Texas had 17.7 percent of LTCHs, but only 9.9 percent of the certified beds.

#### 5. Characteristics by Date of Medicare Participation

The OSCAR system provided data captured by the State survey and certification process that can be used to identify and characterize providers participating in Medicare and Medicaid. The following analyses were based on LTCHs for which data were available. Eight facilities, which accounted for only 1 percent of all LTCH stays and 1.3 percent of certified beds, were excluded from the analysis since 1997 OSCAR records were not available for these facilities.

Given the known payment variations for old and new facilities that were excluded facilities paid under the target amount methodology, we divided the LTCHs by age (the date of the LTCH's first Medicare participation, as reported by OSCAR) to gain a sense of the variation among the existing LTCHs in 1997. A strong correlation was found between the age of a LTCH and other key characteristics, such as location and ownership control, as well as operating costs and Medicare payments. For analytical purposes, therefore, the total sample of LTCHs was stratified based on age ("old," "middle," or "new"). Of the 195 LTCHs in OSCAR in 1997, 20 percent were in existence before the acute care hospital inpatient prospective payment system and the acute care hospital inpatient prospective payment system exclusions went into effect in October 1983 (old LTCHs); 30 percent were determined to be LTCHs between October 1983 and September 1993 (middle LTCHs); and 50 percent were determined to be LTCHs between October 1993 and September 1997 (new LTCHs). This pattern is consistent with reports of the large growth in the number of LTCHs in recent years. (As of November 2001, OSCAR had data on 270 LTCHs, which indicate that the growth has continued.)

Old LTCHs were generally located in the northeast region of the United States, while newer LTCHs are typically located in the southern region. Most notably, the ownership of the LTCHs that began Medicare participation before and after the implementation of the acute care hospital inpatient prospective

payment system was quite different. Old LTCHs were either government controlled (about 63 percent) or nonprofit (about 37 percent). In contrast, one-half of the LTCHs that began participation in Medicare between 1983 and 1993 and two-thirds of those that began participation in Medicare in FY 1994 or later were proprietary facilities. Virtually no new LTCHs were government controlled.

#### 6. Hospitals-Within-Hospitals and Satellite Facilities

The Medicare statute does not contemplate the recognition of "LTCH units" of prospective payment system acute care hospitals; the statute does reference rehabilitation and psychiatric units. Long-term care units of prospective payment system hospitals are not allowed in part because of the concern that transfers of acute care patients into the LTCH units could inappropriately maximize prospective payments under the acute care hospital inpatient prospective payment system. The presence of a long-term care "unit", excluded from the acute care hospital inpatient prospective payment system and co-located in an acute care hospital, could enable the acute care hospital to shift patients to the long-term care "unit" without completing the full course of treatment. These patient transfers could result in inappropriate payments under Medicare since the acute care hospital would make money in those cases where it received a full DRG payment without providing the full course of treatment to the beneficiary and could avoid losing any money for other more costly patients by prematurely discharging them to the LTCH. Since payments to hospitals under the acute care hospital inpatient prospective payment system were based on hospital costs that included the costs of patients with longer lengths of stay, such a patient shift would result in an "overpayment" to the acute care hospital and the LTCH would receive an additional payment for that same patient.

Nonetheless, in the mid-1990s, of the roughly 150 LTCHs in existence at the time, about 12 recently established LTCHs were, in fact, LTCHs located in the buildings or on the campuses of acute care hospitals. In order to prevent the shifting of costs within the Medicare payment system that would result from inappropriate transfers between the inpatient acute care hospital and the LTCH located within the acute care hospital, we have implemented additional qualifying criteria at § 412.22(e) for these entities. These criteria require that in order to be

excluded from the acute care hospital inpatient prospective payment system, a hospital located in or on the campus of an acute care hospital (referred to as a "hospital-within-a-hospital") must have a separate governing body, chief executive officer, chief medical officer, and medical staff. In addition, the hospital must perform basic functions independently from the host hospital, incur no more than 15 percent of its total inpatient operating costs for items and services supplied by the hospital in which it is located, and have an inpatient load of which at least 75 percent of patients are admitted from sources other than the host hospital. Originally, these regulations were effective as of October 1994. However, section 4417(a) of the BBA amended section 1886(d)(1)(B) of the Act to provide that a hospital that was excluded from the acute care hospital inpatient prospective payment system on or before September 30, 1995, as an LTCH, must continue to be so classified, notwithstanding that it is located in the same building or in one or more buildings located on the same campus as another hospital (§ 412.22(f)). This provision, codified in § 412.22(f), exempts certain LTCHs that are hospitals-within-hospitals from the ownership and control requirements discussed above.

In the late 1990s, we became aware of a newly developing entity that was physically similar, but legally unrelated, to a hospital-within-a-hospital. These entities were hospital-within-hospital type facilities (in the buildings or on the campuses of acute care hospitals) owned by a separate existing LTCH. We identified these facilities as "long-term care hospital satellites."

In the July 30, 1999 **Federal Register** (64 FR 41540), we revised § 412.22(h) to require that in order to be excluded from the acute care hospital inpatient prospective payment system, a satellite of a hospital: (1) Must maintain admission and discharge records that are separately identified from those of the hospital in which it is located; (2) cannot commingle beds with beds of the hospital in which it is located; (3) must be serviced by the same fiscal intermediary as the hospital of which it is a part; (4) must be treated as a separate cost center of the hospital of which it is a part; (5) for cost reporting purposes, must use an accounting system that properly allocates costs and maintains adequate data to support the basis of allocation; and (6) must report costs in the cost report of the hospital of which it is a part, covering the same fiscal period and using the same method of apportionment as that hospital. In

addition, the satellite facility must independently comply with the qualifying criteria for exclusion from the acute care hospital inpatient prospective payment system. The total number of State-licensed and Medicare-certified beds (including those of the satellite facility) for a hospital that was excluded from the acute care hospital inpatient prospective payment system for the most recent cost reporting period beginning before October 1, 1997, may not exceed the hospital's number of beds on the last day of that cost reporting period.

#### 7. Specialty Groups of LTCHs by Patient Mix

There is a widely held view that the population of LTCHs is heterogeneous. We believe that understanding the composition of this population and identifying and classifying subgroups within it are fundamental to designing a prospective payment system for LTCHs.

Broad categories of conditions as defined by major diagnostic categories (MDCs), the principal diagnostic categorization tool used under the acute care hospital inpatient prospective payment system, were used to classify LTCHs according to the medical conditions of their patient caseloads. (MDCs were formed by dividing all possible principal diagnoses into 25 mutually exclusive categories. Most MDCs correspond to a major organ system, though a few correspond to etiology.)

We also explored the possibility of grouping patients by DRGs or by selected individual diagnoses. These attempts resulted in creating groups too small for any effective characterization. However, the analysis did reveal that while some LTCHs treat a wide range of conditions, others specialize in one or two types of conditions. In order to analyze a grouping based on patient mix, under its contract with us, Urban first examined the proportion of facilities' caseloads in specific MDCs. There were five MDCs in which at least one LTCH has a majority (that is, more than 50 percent) of its cases. Patients with respiratory system problems were the most common caseload concentration—in 1997, 13 percent of LTCHs had a caseload concentration of 50 percent to 75 percent, and another 7 percent of LTCHs had more than 75 percent of their cases in this MDC.

The other three MDCs that made up a majority of at least one LTCH's patient caseload (nervous system MDC, musculoskeletal and connective tissue disorders MDC, and factors influencing health status MDC) were all related to

rehabilitation needs. (Because rehabilitation-related DRGs were common to LTCHs and fell into the "Factors Influencing Status" MDC, we are classifying all cases in this MDC as rehabilitation services for the purpose of this analysis.) Seven percent of LTCHs had a majority of their caseload in an MDC related to rehabilitation-related services. A significantly less common concentration was seen in the 2 percent of LTCHs that had a majority of their patients in the mental diseases and disorders MDC. All but two LTCHs in our analysis had some share of patients with respiratory system problems. Similarly, all but five LTCHs had some patients with circulatory problems.

Based on these findings, we developed a grouping that consists of four broad categories of LTCHs based on patient caseload. Facilities with greater than 50 percent of their cases in the respiratory MDC were assigned to a "respiratory specialty" group for the purpose of this analysis. Similarly, all facilities with over 50 percent of their caseload in the mental MDC were designated as "mental specialty" facilities. The three rehabilitation-related MDCs were combined into one "rehabilitation-related MDC" category and grouped into a "rehabilitation specialty" group. All remaining facilities (that did not have high concentrations of patients in the respiratory MDC, the mental MDC, or the rehabilitation-related MDCs category) were placed into a "multispecialty" facility group. LTCHs in this category provide care to a wider range of patient types than LTCHs in the first three categories.

To better understand the relatively large number of multispecialty LTCHs, we explored their MDC composition. Not unexpectedly, most of these facilities had high proportions of cases in the respiratory MDC and the rehabilitation-related MDCs category, although some LTCHs did not serve either of these populations in great numbers. Few LTCHs did have a significant share of their caseload in either the respiratory MDC or the rehabilitation-related MDCs category. Only 2 percent of multispecialty LTCHs had less than 25 percent of their caseload in either specialty group. Similarly, only 7 percent of multispecialty facilities had less than 35 percent of their caseload in either of the two groups. In contrast, about 60 percent of LTCHs had at least half of their caseload in either the respiratory MDC or the rehabilitation-related MDCs category. This high share demonstrated that, despite their assignment to the multispecialty category, most LTCHs

served a high percentage of patients with respiratory or rehabilitation problems, or both.

Although respiratory and rehabilitation specialty facilities were prevalent in the LTCH population, there were also some "niche" LTCHs that have unique patient populations or provide uncommon services. These hospitals included, for example, a large hospital where most admitted individuals (90 percent) die in the facility.

Several LTCHs provided services for special populations. One facility provided services for a prison population. A large share of this facility's funding was through Medicaid; cost report data showed that Medicaid covers two-thirds of its patient stays.

Some other facilities worked with similarly specialized populations and have very small Medicare caseloads. In particular, two facilities that focused on developmentally disabled children and younger adults had fewer than 10 Medicare stays in 1997. Cost reports show that one of these facilities, which provides rehabilitation for its Medicare patients, has few discharges (under 100) regardless of payer source. The other, which provides mostly psychiatric services, relies on public funding for only a small share of its discharge payments.

Although there are a few niche facilities in the LTCH population, our analysis indicated that a preponderance of the LTCHs could be classified in distinct specialty groups that focused on adult rehabilitation and respiratory system care.

#### 8. Sources and Destinations of LTCH Patients

Another useful perspective on LTCHs was the pattern of sources from which patients are admitted to LTCHs and destinations to which LTCH patients are discharged. This information showed how such transition patterns differ among the specialty groups. In general, the findings were consistent with the notion that LTCHs as a group were heterogeneous in terms of the patients they serve.

The vast majority (70 percent) of LTCH patients were admitted from acute care hospitals. Within this group, acute care patients whose stays were designated as "outlier" stays, as defined by section 1886(d)(5)(A)(i) of the Act and implemented in § 412.80, were identified separately. Sixteen percent of LTCH admissions were acute care hospital outlier patients, while 54 percent were admitted from acute care hospitals but did not have extraordinarily long acute care stays.

After acute care hospitals, direct admission from the community was the next most common source of admissions (14 percent) to LTCHs.

The admission patterns varied somewhat by LTCH specialty type. Notably, 85 percent of admissions to respiratory specialty LTCHs were from acute care hospitals, including 22 percent that were acute care hospital outlier cases. A very small percentage (7 percent) of admissions to respiratory specialty LTCHs were from the community. In contrast, the admission sources for the rehabilitation specialty LTCHs were more similar to that of the multispecialty LTCHs. Notably, a higher than average share of patients come from SNFs (8 percent) and HHAs (6 percent) and a lower percentage of patients transitioned from acute care hospital outlier stays (12 percent). A relatively large share (11 percent) of patients at rehabilitation specialty LTCHs were admitted directly from the community compared to patients at respiratory specialty LTCHs (7 percent). These findings suggest that patients admitted to rehabilitation specialty LTCHs might present a less medically intensive clinical picture than patients admitted to respiratory specialty LTCHs.

The admission pattern of patients admitted to the mental specialty LTCHs was quite different from those of the other specialties. Thirty one percent of patients are admitted from acute care hospitals, and only 2 percent of patients are admitted after being acute care hospital outlier cases. In contrast, 40 percent of patients were admitted directly from the community and 27 percent were admitted from some other type of Medicare provider.

An analysis of the pattern of discharge destinations for LTCHs shows that, overall, 38 percent of LTCH stays were discharged to the community without additional Medicare services. Almost equal percentages (18 percent) were discharged to SNFs and acute care hospitals, and 21 percent of patients were discharged to HHAs.

Some variations in discharge destination patterns existed among LTCHs by specialty. Relative to the overall sample, the respiratory specialty LTCHs had higher than average percentages of patients discharged to SNFs (24 percent versus 18 percent), and lower percentages discharged to HHAs (14 percent versus 21 percent). However, rehabilitation specialty facilities had a relatively high proportion of cases (34 percent) discharged to HHAs, and a lower than average proportion discharged to the community without additional Medicare services (28 percent versus 38

percent). Finally, mental specialty hospitals have an unusually high percent of cases (71 percent) discharged to the community without additional Medicare services. These findings suggest that patients served by respiratory specialty LTCHs are more likely to require extended care in institutional settings (for example, SNFs), while patients discharged from rehabilitation specialty facilities also require extended care, but not necessarily in institutional settings.

#### 9. LTCHs and Patterns Among Postacute Care Facilities

Urban's research also produced data regarding a comparison of LTCHs with other postacute care settings in order to provide us with the broadest possible understanding of the universe of LTCHs. The findings were only preliminary comparisons of patients among and across postacute settings because of the nature of each category of postacute care providers. Even though data suggest substantial clinical differences among the providers with some areas of overlap, because of some similarities we found it useful to draw parallels and distinctions among postacute care providers. Moreover, findings from this research supported conclusions published in several reports to the Congress produced by ProPAC and MedPAC over the past decade.

Most patients in LTCHs had several diagnosis codes on their Medicare claims, indicating that they had multiple comorbidities and are probably less stable upon admission than patients admitted to other postacute care settings. Relative to IRFs, LTCHs had a higher proportion of patient costs attributable to ancillary services (for example, pharmacy, laboratory, and radiology charges) (MedPAC March 1999 Report to Congress, p. 95). LTCHs also provided care to a disproportionately large number of Medicare beneficiaries who are eligible because of disability. While individuals with disabilities make up about 10 percent of the Medicare population, they make up 17 percent of LTCH patients.

Urban's analysis also explored the demographic characteristics of LTCH patients compared to IRF patients. The proportion of LTCH patients who are under 65 years of age (18 percent) was twice that of IRF patients (9 percent). The share of LTCH patients over 85 years old was slightly higher (18 percent) compared to IRF patients (14 percent). LTCHs also had a higher proportion of male patients and a lower proportion of white patients than IRFs. LTCHs had long median lengths of stay:

21 days versus 16 days for IRFs. About one-third of the LTCH Medicare stays were by beneficiaries who are also eligible for Medicaid, compared to fewer Medicaid-eligible beneficiary stays at IRFs (17 percent). It has been widely documented that dually eligible beneficiaries are generally much sicker than non-Medicaid eligible Medicare beneficiaries.

Urban's analysis also included a description of the demographic characteristics of LTCH patient stays by admission sources—outlier acute care hospital, nonoutlier acute care hospital, and other. Those with prior outlier acute care hospital stays seem to be the most distinctive group in terms of length of stay, gender, race, and poverty: they had the highest mean and median length of stay in the LTCH, the highest male proportion, the highest white proportion, and the lowest proportion of Medicaid-eligible patients. However, in terms of age, those with prior hospital stays (whether outlier or nonoutlier) were quite different from those with other admission sources. Those without a prior acute care hospital stay were younger and about twice as many are under age 65, whose mean age was about 5 and 3 years lower than those with a prior outlier stay and those with a prior nonoutlier stay, respectively. Among those with an acute care hospital stay, the nonoutlier patients were slightly older on average, with higher percentages in the oldest groups (75 to 84 and 85 plus) and the highest median age of all three groups.

The policies in the March 22, 2002 proposed rule and in this final rule were determined in part based on analysis of the above data and information gathered on LTCHs and their Medicare patients.

#### D. Overview of Systems Analysis for the LTCH Prospective Payment System

For the systems analysis, 3M used the MedPAR (FY 1999 through FY 2000), OSCAR (FY 2000), and HCRIS (FYs 1998 and early 1999) files for the March 22, 2002 proposed rule. Specifically, 3M performed the following tasks:

- Construction of an updated data file, using the most recent data available from CMS.
- Analysis of issues, factors, or variables and presentation of options for possible use in the design and implementation of the prospective payment system.
- Data simulation of various system features to analyze their impact on the design of the prospective payment system.

A data file was constructed to serve as the basis of our patient classification system presented in the proposed rule

and the development of proposed payment weight rates and proposed payment adjustments. The analysis of this data file helped us regarding the structure of the prospective payment system in the proposed rule. We relied upon patient charge data from FY 2000 MedPAR for proposing LTC-DRG weights and upon costs data from FY 1998 and FY 1999 cost reports for proposed payment rates.

For this final rule, we used updated and expanded data from the FY 2000 MedPAR file to develop the payment weight rates and payment adjustments for FY 2003. Section X.K. of this final rule contains a detailed discussion of the data used to develop the FY 2003 payment rates and payment adjustments, the public comments received on the proposed rates and adjustments, and our responses to those comments.

#### *E. Evaluation of DRG-Based Patient Classification Systems*

Section 307(b)(1) of Public Law 106-554 modified the requirements of section 123 of Public Law 106-113 by specifically requiring that the Secretary examine "the feasibility and the impact of basing payment under such a system [the LTCH prospective payment system] on the use of existing (or refined) hospital diagnosis-related groups (DRGs) that have been modified to account for different resource use of long-term care hospital patients as well as the use of the most recently available hospital discharge data."

In order to comply with statutory mandates, our evaluation of DRG-based patient classification systems focused on two models—the LTC-all patient-refined DRGs (LTC-APR-DRGs, Version 1.0), a severity-based case-mix classification system developed specifically for LTCHs; and the LTC-CMS-DRGs, a modification of the DRG system used in the acute care hospital inpatient prospective payment system.

The LTC-APR-DRGs, a condensed version of 3M's all-patient refined DRGs (APR-DRGs) for acute care hospitals, was developed by 3M Health Information Systems, for exclusive use in LTCHs. The LTC-APR-DRG system was designed to reflect the clinical characteristics of LTCH patients. This case-mix classification model contains 26 base LTC-APR-DRGs, subdivided by 4 severity of illness levels to yield 104 classification levels. In this system, the patient's secondary diagnoses, their interaction, and their clinical impact on the primary diagnosis determine the severity level assigned to each of the 26 LTC-APR-DRGs.

The LTC-CMS-DRGs are based on research done by The Lewin Group (Developing a Long-Term Hospital Prospective Payment System Using Currently Available Administrative Data for the National Association of Long-Term Hospitals (NALTH), July 1999). This model uses our existing hospital inpatient DRGs with weights that accounted for the difference in resource use by patients exhibiting the case complexity and multiple medical problems characteristic of LTCHs. In order to deal with the large number of low volume DRGs (all DRGs with fewer than 25 cases), the LTC-CMS-DRG model groups low volume DRGs into 5 quintiles based on average charge per discharge. The result was 184 classification groups (179 DRG-based and 5 charge-based payment groups) based on patient data from FYs 1994 and 1995. (CMS updated this analysis using patient data from FYs 1999 and 2000 for purposes of system evaluations.)

As discussed in the March 22, 2002 proposed rule (67 FR 13426), under either classification system, DRG weights would be based on data for the population of LTCH discharges, reflecting the fact that LTCH patients represent a different patient mix than patients in short-term acute care hospitals. GROUPER software programs enabled us to examine the most recent LTCH and acute care hospital inpatient prospective payment system patient discharge data in light of the features of each system. Using regression analyses and simulations, the impact of each patient classification system on potential adjustment features for the prospective payment system was assessed. (Data files used in these analyses are specified in section V.B. of this preamble.) Our medical staff as well as physicians involved in treatment of patients at LTCHs provided additional input from the standpoint of clinical coherence and practical applicability.

The system that we are adopting in this final rule for the LTCH prospective payment system is the LTC-CMS-DRG GROUPER based on the Lewin model that we proposed in the March 22, 2002 proposed rule (67 FR 13426). We believe this system accurately predicts costs without the problems that we believe could be inherent with the APR-DRG system. (In section IX. of this final rule, which describes the functioning of the classification system as a component of the LTCH prospective payment system, the LTC-CMS-DRGs are referred to as the LTC-DRGs.)

It is important to note that we have analyzed both systems based on MedPAR files generated by LTCH

patient data, using the best available data. Since the TEFRA payment system, under which LTCHs are currently paid, is not tied to patient diagnoses, the coding data from LTCHs have not been used for payment. Nevertheless, data analyses indicated that there was a minimal difference in both systems' abilities to predict costs. (The difference in the R<sup>2</sup>, a statistical measure of how much variation in resource use among cases is explained by the models, was only 0.0313.)

In the March 22, 2002 proposed rule (67 FR 13426), we indicated that we believed that either classification system would result in more equitable payments for LTCHs compared to current payment methods. The LTCH prospective payment system would generally improve the accuracy of payments for more clinically complex patients. (See our discussion of the TEFRA payment system in section III.C. of this final rule.) As the Congress intended, the DRG weights under the LTCH prospective payment system would reflect the " \* \* \* different resource use of long-term care hospital patients." Patients requiring more intensive complex services would be classified in LTC-DRGs with higher relative weights and hospitals would receive appropriately higher payments for these patients. In the proposed rule, we solicited comments on the impact that one system may have over another as it applies to different kinds of LTCHs. Any public comments that we received on the impact of both systems are included in sections IX. and XII. of this final rule.

Although either system would result in more equitable payments to LTCHs, we have several interrelated concerns about adopting the LTC-APR-DRG system based upon its complexity, its clinical subjectivity, and its utility as it relates to other Medicare prospective payment systems. The LTC-APR-DRG model provides a clinical description of the population of LTCHs, patients exhibiting a range of severity of illness with multiple comorbidities as indicated by secondary diagnoses. The clinical interaction of the primary diagnosis with these comorbidities determines the severity level of the primary diagnoses, resulting in the final assignment to a LTC-APR-DRG by the GROUPER software designed for this system.

One aspect of our examination of the LTC-APR-DRG system included clinical review of actual case studies provided by physicians at several LTCHs and evaluations of the LTC-APR-DRG assignments that would have resulted based on the clinical logic of

the APR-DRG GROUPER. A review of a number of those cases by different medical professionals resulted in different possible classifications for the GROUPER program. Looking at the same case, different views were held as to which APR-DRG category or to which level of severity the case should be grouped. Given the array of specialization at different LTCHs reflecting a range of services and patient types, as described in section V.C.7. of this preamble, we believe that we lack sufficient data, at this point in time, to definitely determine the effect of particular comorbidities on patient resource needs in LTCHs. Furthermore, it appears that depending on how many of the diagnoses are coded, medical judgement suggests that it could be possible to classify the same patient in more than one group or level of severity. Because of these concerns, we believe that payments under such a policy could be insufficiently well-defined, given currently available data, to ensure consistently appropriate Medicare payments.

We note that the prospective payment system that we have adopted for IRFs is based on a patient classification system that includes a measure of comorbidities, the combination of the case-mix group (CMG) and comorbidity tier. In general, most IRF patients are treated for one primary rehabilitation condition (for example, a hip replacement) that is associated with functional measures and sometimes age. The CMGs constructed for IRF patients account for diagnostic, functional, and age variables. These variables are used to explain the variability in the cost among the various CMGs. Some of the remaining variability in cost could then be further explained by selected comorbidities which the inpatient rehabilitation data showed were statistically significant.

In contrast, determining whether particular comorbidities increase the cost of a case for a LTCH patient is complicated by the nature of the clinical characteristics of these patients. More specifically, many LTCH patients have numerous conditions that may not all be relevant to the cost of care for a particular discharge. Although the patient actually has a specific condition, including this condition among secondary diagnoses coded under the LTC-APR-DRG system may assign an inaccurate severity level to the primary diagnosis and result in inappropriate LTC-APR-DRG payment. We also believe that reliance on existing comorbidity information submitted on LTCH bills could result in significant

variation in the assignment of the specific LTC-APR-DRGs.

The LTC-CMS-DRG system is a system that is familiar to hospitals because it is based on the current DRG system under the acute care hospital inpatient prospective payment system. We believe that the familiarity of the LTC-CMS-DRG model may best facilitate the transition from the reasonable cost-based system to the prospective payment system as well as providing continuity in payment methodology across related sites of care (for example, an acute care hospitalization for a patient with a chronic condition).

We further note that the adoption of severity-adjusted DRGs will be explored by CMS for use under the acute care hospital inpatient prospective payment system. In its June 2000 Report to Congress, MedPAC recommended that the Secretary “\* \* \* improve the hospital inpatient prospective payment system by adopting, as soon as practicable, diagnosis related group refinements that more fully capture differences in severity of illness among patients.” (Recommendation 3A, p. 63)

In the March 22, 2002 proposed rule, although we did not propose adopting the LTC-APR-DRGs in the LTCH prospective payment system, we did solicit comments on its possible use.

Even though we are using LTC-DRGs in the LTCH prospective payment system in this final rule, we may have the opportunity to propose a severity-adjusted patient classification for LTCHs in the future, particularly if the acute care hospital inpatient prospective payment system moves in this direction. Any public comments that we received on the possible use of LTC-APR-DRG or some other system in the future are addressed in section IX. of this final rule.

## VI. Recommendations by MedPAC for a LTCH Prospective Payment System

As we noted in the section III.E. of this final rule, since the establishment of the acute care hospital inpatient prospective payment system in 1983, the topic of postacute care payments under Medicare has been addressed in reports to the Congress prepared by ProPAC and its successor, MedPAC. Recommendations in these reports encouraged modifications to Medicare payment policies, examined the differences among postacute care providers and within each category of providers, and reiterated the goal of eventually implementing prospective payment systems for providers being paid under the target amount payment methodology.

In its March 1, 1996 Report and Recommendations to the Congress, ProPAC recommended that “prospective payment systems should be implemented for all postacute services. The payment method for each service should be consistent across delivery sites. The Secretary should explore methods to control the volume of postacute service use, such as bundling services for a single payment.” (Recommendation 20, p. 75)

The following year, in its March 1, 1997 Report and Recommendations to the Congress, ProPAC recommended “\* \* \* the Congress and the Secretary to consider the overlap in services and beneficiaries across postacute care providers as they modify Medicare payment policies. Changes to one provider’s payment method could shift utilization to other sites and thus fail to curb overall spending. To this end, ProPAC commends HCFA’s [now CMS] efforts to identify elements common to the various facility-specific patient classification systems to use in comparing beneficiaries across settings.” Ultimately, Medicare should move towards more uniform payment policies across sites, the Report continued, and “payment amounts should vary depending on the intensity and nature of the services beneficiaries require, rather than on the setting. Further, providers should have incentives to coordinate services or an episode \* \* \*.” (p. 60)

However, with enactment of the BBA, the Congress enacted legislation to provide for distinct prospective payment systems for HHAs (section 4603(b)), SNFs (section 4432(a)), and IRFs (section 4421). The BBA further required the development of a legislative proposal for the case-mix adjusted LTCH prospective payment system. Section 123 of the BBRA requires the Secretary to develop a per discharge DRG-based system for LTCHs, and section 307(b)(1) of the BIPA mandates that the Secretary examine the feasibility and impact of basing payments to LTCHs using the existing or refined DRGs, modified to account for the resource use of LTCH patients. Thus, the Congress mandated distinct systems that would result in different payments, depending on the type of Medicare provider, and not a system that is uniform across sites of care.

Notwithstanding the mandate to establish postacute care prospective payment systems, MedPAC continued to articulate concern regarding the overlap of services among postacute providers. In its June 1998 Report to Congress, MedPAC stated that “all of these policy changes, in combination with the fact

that similar services can be provided in multiple postacute settings, indicate the need for continued monitoring and analysis of postacute providers, policies, and service utilization.” (p. 90)

In its March 1999 Report to Congress, MedPAC encouraged the Secretary to “\* \* \* collect a core set of patient assessment information across all postacute care settings.”

(Recommendation 5A, p. 82)

Section 123 of the BBRA specifically mandated a per discharge, DRG-based prospective payment system for LTCHs and established a timetable for the presentation of the proposed system in a report to the Congress by October 1, 2001 and for implementation of the actual prospective payment system by October 1, 2002. Further direction for a distinct prospective payment system for LTCHs was indicated in section 307(b) of the BIPA, which directed the Secretary to examine a number of payment adjustment factors and established a default system if the Secretary is unable to meet the implementation timetable.

As we developed the prospective payment system for LTCHs described in this final rule, however, we wish to state that we do not believe that the establishment of distinct prospective payment systems for each postacute care provider group eliminates the need to monitor payments and services across all service settings. We endorse MedPAC's Recommendation 3G, in its March 2000 Report to Congress, that encourages the Secretary to “assess important aspects of the care uniquely provided in a particular setting, compare certain processes and outcomes of care provided in alternative settings, and evaluate the quality of care furnished in multiple-provider episodes of postacute care.” (p. 65) We intend to monitor the appropriateness of LTCH stays by tracking the number of LTCH patients and SNF patients and the frequency of subsequent admissions to an acute care hospital. We believe these data will be valuable in assessing the outcome of care provided in these settings.

Furthermore, we strongly support the additional research that will be required to choose or to develop an assessment instrument that will evaluate the quality of services delivered to beneficiaries in postacute settings.

## VII. Evaluated Options for the Prospective Payment System for LTCHs

Section 123 of the BBRA and section 307(b) of the BIPA establish the statutory authority for the development of the prospective payment system for LTCHs that is discussed in this final

rule. Under the BBRA, we are required to:

- Develop a per discharge prospective payment system for inpatient hospital services furnished by LTCHs described in section 1886(d)(1)(B)(iv) of the Act.
- Include an adequate patient classification system that is based on DRGs that reflect the differences in patient resource use and costs.
- Maintain budget neutrality.
- Submit a report to the Congress describing this system by October 1, 2001.
- Implement this system for cost reporting periods beginning on or after October 1, 2002.

Section 307(b) of the BIPA modified the requirements of section 123 of the BBRA by requiring the Secretary to—

- Examine the feasibility and the impact of basing payment under the prospective payment system on the use of existing (or refined) DRGs that have been modified to account for different resource use of LTCH patients, as well as the use of the most recently available hospital data.
- Examine appropriate adjustments to LTCH prospective payments, including adjustments to DRG weights, area wage adjustments, geographic reclassification, outliers, updates, and a disproportionate share adjustment.

Although the statutory mandate for development of the LTCH prospective payment system established in the BBRA and the BIPA requires a per discharge, DRG-based system, generally the statute gives the Secretary broad discretion in designing the prospective payment system. The design of any prospective payment system requires decisions on the following issues:

- The categories used to classify services such as DRGs.
- The methodology for calculating the relative weights that are assigned to each patient category to reflect the relative difference in resource use across DRGs (these are relative values in economic terminology).
- The methodology for calculating the base rate, which is the basis for determining the DRG-based Federal payment rates. It is a standardized payment amount that is based on average costs from a base period and also reflects the combined aggregate effects of the payment weights and various facility-level and case-level adjustments. Operating and capital-related costs may be combined in this base rate or may be treated separately.
- Adjustments to the base rate to reflect cost differences across providers, such as disproportionate share adjustments, indirect graduate medical education programs, and outliers.

- Finally, a procedure for the transition from the current system to the DRG-based prospective payment system must be established.

We pursued a two-pronged strategy as we developed the prospective payment system for LTCHs. First, we analyzed the data and empirical facts about LTCH patients and providers summarized in section V.C. of this preamble. Secondly, in light of this information, we analyzed each option based on regressions and simulations, using the data sets described in section V.B. of this preamble.

Both technical and policy considerations were important in these design proposals. We reviewed features of other recent prospective payment systems designed or implemented by CMS for other postacute care providers to determine the feasibility of including features in the LTCH prospective payment system and to identify modifications that might enhance their application for this system. In addition, we considered factors that were important to the development of Medicare's acute care hospital inpatient prospective payment system, such as urban and rural location and whether the hospital served a disproportionate share of low-income patients. We also analyzed clinical significance, administrative simplicity, availability of data, and consistency with other Medicare payment policies.

In addition to satisfying statutory requirements, the design of the prospective payment system for LTCHs presented in this final rule is the result of the following factors:

- Our empirical understanding of the “universe” of LTCHs and long-term care patients, as set forth in section V.C. of this preamble.
- Our experience with the acute care hospital inpatient prospective payment system.
- Consideration of recommendations in MedPAC's reports to Congress on postacute care.
- Our monitoring of the establishment and continuing development and refinement of prospective payment systems for IRFs, SNFs, and HHAs.

In addition, as we deliberated on the choice of the specific model of DRG-based system that was to be used for the LTCH prospective payment system, we gathered information from LTCH physicians and LTCH representatives.

## VIII. Elements of the LTCH Prospective Payment System

### A. Overview of the System

We are implementing a prospective payment system for LTCHs that will use



information from LTCH patient records to classify patients into distinct LTC-DRGs based on clinical characteristics and expected resource needs. This patient classification system is discussed in detail in section IX. of this final rule. The separate payments that will be calculated for each LTC-DRG and any adjustments to these payments are discussed in detail in section X.J. of this final rule. Below we discuss the applicability of the requirements of the system and other implementation provisions.

## B. Applicability

### 1. Criteria for Classification

Our existing regulations at 42 CFR Part 482, Subparts A through D, set forth the general conditions that hospitals must meet to qualify to participate in Medicare. There are no additional conditions for LTCHs as there are for psychiatric facilities.

Criteria for classification of a hospital as a LTCH for purposes of payment are set forth in existing § 412.23(e). Section 412.23(e) provides that a LTCH must—

- Have a provider agreement to participate as a hospital and an average inpatient length of stay greater than 25 days; or for cost reporting periods beginning on or after August 5, 1997, for a hospital that was first excluded from the acute care hospital inpatient prospective payment system in 1986, have an average inpatient length of stay of greater than 20 days and demonstrate that at least 80 percent of its annual Medicare inpatient discharges in the 12-month cost reporting period ending in FY 1997 have a principal diagnosis that reflects a finding of neoplastic disease, as defined in regulations. The calculation of the average inpatient length of stay is calculated by dividing the number of total inpatient days (less leave or pass days) by the number of total discharges for the hospital's most recent complete cost reporting period.

- Meet the additional criteria specified in § 412.22(e) if it is to be classified as a hospital-within-a-hospital and to be excluded from the acute care hospital inpatient prospective payment system.

- Meet the additional criteria specified in § 412.22(h) if it is to be classified as a satellite facility and to be excluded from the acute care hospital inpatient prospective payment system.

In the March 22, 2002 proposed rule, we proposed that we would apply the existing criteria described above for classification as a LTCH under the LTCH prospective payment system with one exception relating to the average

length of stay requirement discussed in section VIII.B.2. below.

*Comment:* One commenter described a specific LTCH that specializes in end-of-life palliative care for advanced stage cancer patients. Because of the costs associated with this LTCH's case-mix, the commenter was concerned that the LTCH would be unable to continue to offer this type of care based on the payments it expected to receive under the LTCH prospective payment system. Therefore, the commenter requested that CMS allow the hospital to qualify as either a critical access hospital (CAH) or a cancer hospital and continue to be exempted from the acute care hospital inpatient prospective payment system and be paid on a reasonable cost basis.

*Response:* In order for a hospital to be classified as a CAH and not as a LTCH, the hospital would have to meet the statutory criteria for classification as a CAH in section 1820(c)(1)(B) of the Act. Similarly, a hospital would have to meet the statutory criteria for classification as a cancer hospital in section 1886(d)(1)(B)(v) of the Act to be classified as such. To the extent that a hospital does not satisfy the statutory criteria to be classified as a CAH or a cancer hospital and continues to satisfy the statutory criteria to be classified as a LTCH, the hospital will continue to be classified as a LTCH as required by the statute. Any changes in either of these criteria and the accompanying requirements would require legislative action.

*Comment:* Several commenters referenced existing provisions at § 412.22(f) that "grandfather" certain LTCHs for participation in the Medicare program and questioned how this status would be affected by the implementation of the LTCH prospective payment system.

*Response:* We interpret section 4417 of the BBA, codified as section 1886(d)(1)(B) of the Act and implemented under in § 412.22(f), to permit existing LTCHs that were designated LTCHs on or before September 30, 1995, and were co-located with acute care hospitals as hospitals-within-hospitals, to be exempt from compliance with § 412.22(e) concerning the ownership and control requirements for hospital-within-hospital status without losing their status as hospitals excluded from the acute care hospital inpatient prospective payment system. The "grandfathered" status conferred by the statute, which allowed these particular LTCHs to retain the preexisting relationships with their host hospitals, will be unaffected by the implementation of the prospective payment system for LTCHs. However,

we emphasize that, for these "grandfathered" LTCHs to receive payment under the LTCH prospective payment system, they must still satisfy the new requirements established under the LTCH prospective payment system for the average length of stay for Medicare patients of greater than 25 days under revised § 412.23(e)(2) discussed below. Moreover, since we believe that the intent of the statute was to only exempt those pre-FY 1996 LTCHs that are hospitals-within-hospitals from the requirements of § 412.23(e), these "grandfathered" LTCHs will be subject to the onsite discharge and readmission policies set forth in § 412.532, in the same way that they were under the 5-percent threshold established by the TEFRA system (64 FR 41537, July 30, 1999).

*Comment:* Two commenters responded to the description of the universe of LTCHs in the proposed rule by suggesting that CMS require LTCHs that treat large percentages of rehabilitation patients to seek certification as IRFs. Another commenter urged CMS to require LTCHs to monitor their admission criteria to require evaluation of rehabilitation needs and that patients who predominantly need rehabilitation, without complex acute medical needs, should be excluded from admission to a LTCH. The commenter also suggested that CMS enforce an equivalence of payment between LTCHs and IRFs for patients with acute rehabilitation needs. An additional commenter suggested that LTCHs specializing in treating patients with psychiatric LTC-DRGs be required to seek certification as psychiatric facilities.

*Response:* Under section 1886(d)(1)(B) of the Act, the prospective payment system for acute care hospital inpatient operating costs set forth in section 1886(d) of the Act does not apply to several specified types of hospitals, including LTCHs which are defined in section 1886(d)(1)(B)(iv)(I) of the Act as " \* \* a hospital which has an average inpatient length of stay (as determined by the Secretary) of greater than 25 days." Section 1886(d)(1)(B)(iv)(II) of the Act also provides another definition of LTCHs: specifically, a hospital that first received payment under this subsection in 1986 which has an average inpatient length of stay (as determined by the Secretary) of greater than 20 days and has 80 percent or more of its annual Medicare inpatient discharges with a principal diagnosis of neoplastic disease in the 12-month cost reporting period ending in FY 1997. Accordingly, the statute does not provide any exclusions from payment as

a LTCH based on any other criteria, such as treating rehabilitation patients or psychiatric patients. As required by the BBRA and the BIPA, we designed a prospective payment system for LTCHs, effective October 1, 2002, as a distinct classification of hospitals excluded from the acute care hospital inpatient prospective payment system.

Congressional action would be required for any additional requirements or restrictions for classification as LTCHs. After a hospital qualifies as a LTCH and meets the conditions of participation set forth in existing regulations at 42 CFR 482, Subparts A through D, the hospital is free to determine the type of services it will provide. If a LTCH chooses to be treated as a particular type of hospital for Medicare payment purposes, it would have to meet the statutory criteria for that particular type of hospital.

*Comment:* Two commenters questioned specific aspects of the Medicare requirements for hospitals to be paid under the LTCH prospective payment system. One of the commenters suggested using the collection of information requirements established under the Paperwork Reduction Act of 1995 as a rationale for urging CMS to gather more information on LTCH patients so that CMS could develop a mandatory functional status measure for LTCH patients falling into three LTC-DRGs that the commenter identified as reflecting rehabilitation needs. The other commenter urged CMS to require the development and use of a patient assessment tool for LTCH patients classified in rehabilitation LTC-DRGs similar to the IRF patient assessment instrument (PAI).

*Response:* Section 123 of the BBRA and section 307 of the BIPA confers broad authority on the Secretary to design and implement a prospective payment system for LTCHs. In particular, although section 123(a)(2) of the BBRA provides that the Secretary may require LTCHs to submit such information as the Secretary requires to develop a LTCH prospective payment system, the statute contains no requirement for LTCHs to collect information on measuring an individual patient's functional status. Section 123 of the BBRA provided the Secretary with the authority to collect such information from LTCHs that may be necessary to develop the LTCH prospective payment system. The system we have developed incorporates all of the DRGs used in the acute care hospital inpatient prospective payment system. While many patients admitted to LTCHs are rehabilitation patients, most of the patients treated by LTCHs are not rehabilitation patients.

Accordingly, since the IRF prospective payment system, which was developed for rehabilitation patients, incorporates functional status as an integral part of the classification system, it was necessary to collect patient functional status information. However, since, for LTCHs, we have adopted the same DRGs used for inpatient acute care hospitals, functional status is not a part of that system and, therefore, that information is not necessary to collect.

## 2. Change in the Average 25-Day Total Inpatient Stay Requirement

Section 1886(d)(1)(B)(iv)(I) of the Act describes a LTCH generally as "a hospital which has an average inpatient length of stay (as determined by the Secretary) of greater than 25 days." Thus, the statute gives the Secretary broad discretion in determining the average inpatient length of stay for hospitals for purposes of determining whether a hospital warrants exclusion from the acute care hospital inpatient prospective payment system under section 1886(d) of the Act. Existing Medicare regulations at §§ 412.23(e)(1) and (e)(2) include all hospital inpatients in this calculation of the average inpatient length of stay.

As we indicated in the March 22, 2002 proposed rule (67 FR 13430), our data revealed that approximately 52 percent of Medicare patients at LTCHs have lengths of stay of less than two-thirds of the average length of stay for the LTC-DRGs, and 20 percent have a length of stay of even less than 8 days. This means that some hospitals, while currently qualifying as LTCH by averaging non-Medicare long-stay patients to maintain a length of stay of over 25 days, do not generally furnish "long-term care" to their Medicare patients. In these situations, many of the hospitals' short-stay Medicare patients could be receiving appropriate services as patients at acute care hospitals. Under the LTCH prospective payment system, the LTC-DRG weights and standard Federal payment rate are based on the charges and costs of services furnished to LTCH patients, which are typically more medically complex and more costly than those furnished to acute care hospital patients.

The LTCH prospective payment system will result in higher per discharge payments for LTCHs than payments under the acute care hospital inpatient prospective payment system for patients that will group into identical DRGs under each system. Therefore, we stated that we believed that application of current policy, which factors in non-Medicare patients' lengths of stay in determining LTCH

status, could result in inappropriately higher payments for those Medicare short-stay patients who happen to be treated in a LTCH instead of an acute care hospital. This is the case when a hospital does not reach the mandatory 25-day average length of stay for designation as a LTCH without non-Medicare patients included in the calculation. Therefore, we proposed that if a hospital were not treating Medicare patients that, on average, require the more costly services offered at LTCHs that differentiate these hospitals from acute care hospitals, Medicare payments would be determined under the acute care hospital inpatient prospective payment system. Such payments would be lower for each acute care DRG than for each LTC-DRG, reflecting the lower costs of acute care hospitals.

Under the current reasonable cost-based reimbursement system, Medicare payments to LTCHs are commensurate with the actual reasonable costs incurred by the hospital. Therefore, under that system, Medicare payments for shorter lengths of stay patients reflect the lower costs of those patients. However, under the LTCH prospective payment system, which is based on average costs of treatment for particular diagnosis, the hospital will receive prospective payments based on the average costs for these much shorter length of stay patients. Even under our short-stay outlier policy, as described in section X.C. of this final rule, the hospital will have the opportunity to be paid 120 percent of its costs.

Therefore, in the March 22, 2002 proposed rule, we proposed to include the hospital's Medicare patients, but not non-Medicare patients, in determining the average inpatient length of stay (§ 412.23(e)(2)) for purposes of section 1886(d)(1)(B)(iv)(I) of the Act.

Our proposal was based on a belief that there would be a strong incentive for LTCHs not to admit many short-stay Medicare patients since doing so could jeopardize their status as a LTCH. Instead, those patients could receive appropriate care at an acute care hospital and the care will be paid under the acute care hospital inpatient prospective payment system. Furthermore, our proposal to change the methodology for determining the average inpatient length of stay to be based only on Medicare patients was consistent with the intent of our proposed policies to make different payments for cases of very short-short stay discharge and short-stay outliers. These proposed policies also were intended to discourage LTCHs under the prospective payment system from treating Medicare patients who do not

require the more costly resources of LTCHs and who could reasonably be treated in acute care hospitals.

We received a substantial number of comments on the proposed change to the average 25-day length of stay requirement.

*Comment:* The majority of the commenters endorsed the proposed policy of counting only Medicare patients in determining the 25-day average length of stay. However, the commenters believed that the calculation should be based on total days that a Medicare patient received care in the LTCH rather than just the days for which the cost of care was covered by Medicare (that is, "covered days").

Since a high percentage of LTCH patients are admitted following inpatient stays at acute care hospitals, the commenters expressed concern that some patients could exhaust their Medicare coverage before it was clinically appropriate for them to be discharged from the LTCH. The commenters were concerned that if only Medicare-covered days were counted in the average length of stay calculation for qualification as a LTCH, it would behoove a hospital to treat only those Medicare patients who were far from exhausting their Part A benefits and, concomitantly, to refuse admittance to patients with limited or no remaining Medicare days, regardless of the clinical appropriateness of such an admission in order to retain (or attain) LTCH status. The commenters gave the following as an example: If only covered days were counted in the qualification formula, a Medicare patient who was actually in the LTCH for 30 days but only had 4 days of Medicare Part A coverage remaining upon admittance to the LTCH, for purposes of the formula, would count as a patient stay of 4 days. Thus, the commenters pointed out, while the hospital would be treating Medicare patients who have an average length of stay of over 25 days, a number of these admissions could jeopardize the hospital's payment under Medicare as a LTCH.

Two commenters also noted that, under existing policy which counted all patient days, Medicare noncovered days were not excluded from the 25-day average length of stay calculations. They urged us to continue this policy while restricting the actual patient count to Medicare patients.

*Response:* As noted above, our data analyses disclosed that a significant number of Medicare patients at LTCHs were treated for considerably less time than the average length of stay. In many cases, in order to maintain the current

25-day length of stay requirement, these shorter Medicare stays were being offset by much longer stays of non-Medicare patients. Given the Secretary's broad discretion under section 1886(d)(1)(B)(iv)(I) of the Act to define the 25-day average length of stay, we proposed to revise § 412.23(e)(1) to limit the average inpatient length of stay calculation solely to Medicare patients. Our purpose was to ensure that payments under the LTCH prospective payment system are based on the charges and costs of treating Medicare patients with the high medical complexity associated with LTCHs, and not the costs of providing highly complex care to non-Medicare patients.

We do not wish to create any barriers for LTCHs to treat Medicare patients who require long-term hospitalization and who could benefit from the particular treatment modalities available in some LTCHs. LTCHs exist as a provider-type in order to treat Medicare patients requiring complex long-term, hospital-level care. We believe that a hospital's right to qualify for payments under the prospective payment system for LTCHs should result from the actual provision of clinically appropriate care to Medicare LTCH patients rather than on the number of Medicare covered days remaining for any of their patients during any particular cost reporting period. Accordingly, in this final rule, we are maintaining our current policy of counting all patient stays and revising §§ 412.23(e)(2) and (e)(3) to specify that we will count *all* the days in a Medicare patient's stay (covered and noncovered days), that is, total days, in the LTCH in calculating whether a LTCH meets the average 25-day length of stay requirement.

*Comment:* Two commenters disagreed with the proposed policy change and requested CMS to retain the policy of counting all patient days in the calculation. One of the commenters noted that, based on its experience, its non-Medicare patients required more complicated treatment than its Medicare patients and, therefore, for a hospital's status to hinge on the shorter length of stay of Medicare patients contradicted the purpose of a LTCH.

*Response:* We reiterate that section 1886(d)(1)(B)(iv)(I) of the Act confers broad authority on the Secretary to determine the parameters of the "average inpatient length of stay of greater than 25 days." We interpret the provisions to apply to payment for patients who are provided care under Medicare. We believe that the redefinition of the average length-of-stay criterion as limited solely to Medicare patients at LTCHs conforms to the

requirements of section 123 of the BBRA for the development of a prospective payment system for payment of inpatient hospital services furnished by LTCHs "under the [M]edicare program." Furthermore, nothing in this revised criterion prevents or discourages LTCHs from accepting non-Medicare patients. Should a LTCH be unable to retain its status within this payment category because a significant number of its Medicare patients do not require long-term hospital-level care, we believe that it is reasonable for the facility to reevaluate the appropriateness of its admission policies. Notwithstanding any changes in the type of patients treated at the hospital, the hospital will still be able to admit and be paid by Medicare as an acute care hospital.

*Comment:* Several commenters expressed concern about the length of time an existing LTCH would have to comply with the proposed revised average 25-day length of stay requirement before its ability to participate in Medicare as an LTCH would be jeopardized and questioned compliance monitoring. The commenters suggested that CMS institute a "grace period" for LTCHs to comply with the new requirement.

*Response:* The revised definition for an average length of stay, which is determined on Medicare inpatients only, is effective for LTCH hospitals starting with their first cost reporting period that begins on or after October 1, 2002. We have directed our fiscal intermediaries to determine whether existing LTCHs qualify for payments under the LTCH prospective payment system according to the revised criteria after October 1, 2002. In addition, we have directed our fiscal intermediaries to notify LTCHs about whether a LTCH qualifies for payment under the LTCH prospective payment system before the start of the LTCH's next cost reporting period.

Under existing policy at § 412.22(d), changes in a hospital's status are effective at the beginning of the next cost reporting period and are effective for the entire cost reporting period. Therefore, for example, in the case of an existing LTCH with a cost reporting period beginning on October 1, 2002, for which a LTCH's fiscal intermediary determined on January 15, 2003, that the LTCH did not meet the new 25-day average length of stay criterion for the 12-month period for which the fiscal intermediary or CMS has the most recent cost report data, the LTCH would be paid as a LTCH until September 30, 2003. The LTCH would then lose its LTCH status as of October 1, 2003 unless for the 6 months prior to

September 30, 2003, the LTCH demonstrated that it had an average length of stay of greater than 25 days for its Medicare inpatients under existing § 412.23(e)(3)(ii), which we are not revising. If the hospital was able to demonstrate that during the 6 months prior to September 30, 2003, that it had an average Medicare length of stay of greater than 25 days, the hospital would continue to be paid as a LTCH even after October 1, 2003 (§ 412.23(e)(3)(ii)). Therefore, notification by the LTCH's fiscal intermediary following the effective date of the LTCH prospective payment system on October 1, 2002, will permit LTCHs that would not qualify based on their most recent cost report data to adapt to the revised length of stay criterion before reaching the actual point where they would cease to be paid as LTCHs.

As a further example, a LTCH that begins its next cost reporting period on January 1, 2003 will be notified about whether it satisfies the revised average length of stay criterion effective on October 1, 2002, for the 12-month period for which the fiscal intermediary or CMS has the most recent cost report data, by its fiscal intermediary after the start of its fiscal year on January 1, 2003. In the event that a LTCH's most recent cost report indicates that it would not qualify, the LTCH would still be paid as a LTCH from January 1, 2003 through December 31, 2003. The hospital would lose its LTCH status as of January 1, 2004, and be paid under the acute care hospital inpatient prospective payment system unless it provides data to its fiscal intermediary for the 6-month period immediately preceding December 31, 2003, which demonstrate that it satisfies the average length of stay criterion (§ 412.23(e)(3)(ii)).

Through application of the existing regulations described above, we believe that LTCHs are granted sufficient time to adapt to the new length of stay requirements for payment under the LTCH prospective payment system and we do not believe that it is necessary or appropriate to grant an additional "grace period" for this purpose.

*Comment:* One commenter noted that juxtaposing the proposed interrupted stay policy with the revised average 25-day length of stay criterion could be problematic in determining whether a hospital continued to qualify for Medicare payments as a LTCH. The commenter described the following scenario: a patient, after a 100-day stay at a LTCH, is discharged to an acute care hospital 5 days before the end of a Medicare fiscal year that resulted in an average length of stay of 25.01 days. The patient is then readmitted at the start of

the next Medicare fiscal year to the LTCH as an interrupted stay from the acute care hospital. Under our proposed interrupted stay policy, we would treat both stays as one discharge from the LTCH. Therefore, the patient's 100-day stay from the prior Medicare cost reporting period would be counted in the following year's cost reporting period and the LTCH's average Medicare inpatient length of stay for the prior cost reporting period would drop below 25 days. The commenter questioned whether, for purposes of calculating the average 25-day length of stay, the LTCH be at risk of losing LTCH status if the average length of stay for the previous Medicare fiscal year fell below the 25 days.

*Response:* Under our proposed interrupted stay policy, a LTCH patient who is discharged to an acute care inpatient hospital, an IRF, or a SNF and then returns to the same LTCH would be treated as an interrupted stay (with one LTC-DRG payment) or as a new admission (with two separate LTC-DRG payments) depending on the patient's length of stay compared to the average length of stay and the standard deviation for the acute care hospital inpatient prospective payment system DRG, the IRF combination of the CMG and the comorbidity tier, or 45 days for all Medicare SNF cases.

We have revised the proposed interrupted stay policy in this final rule. The interrupted stay policy set forth in section X.E. of this final rule provides that the lengths of stay at acute care hospitals and IRFs are based on one standard deviation from the average length of stay for all patients in acute hospitals and IRFs, respectively. Therefore, in this final rule, the interrupted stay policy for acute care hospitals, IRFs, and SNFs are based on the same formula. Under this revised policy, the patient stay described by the commenter would be an interrupted stay if the patient returned to the LTCH from the acute care hospital before reaching the 9-day threshold for acute care hospitals. The readmission to the LTCH would be considered as a resumption of the treatment from the original admission rather than as a second admission. Therefore, the patient's original discharge from the LTCH at the end of the fiscal year would not count as a discharge for length of stay calculations for that fiscal year because the discharge to the acute care hospital is merely the point at which the stay was interrupted, and the patient ultimately returned to the same LTCH within a specified fixed day period. For both Medicare payment determinations under the interrupted stay policy and

length of stay calculations, the discharge for that patient would occur when the patient is discharged from the LTCH during the next fiscal year. This is the case since the calculation of a LTCH's average length of stay for purposes of qualifying as a LTCH is based on discharges during a cost reporting period. Consequently, in accordance with the requirements at § 412.23(e), while the days of care provided to this patient would be included in the length of stay calculation in the first year, the discharge for that patient with the 100-day stay would be counted in the length of stay calculation for the subsequent fiscal year.

We understand the commenter's concern that such a scenario could jeopardize the hospital's ability to participate in the Medicare program as a LTCH. We emphasize that, under the policy described in the previous response, this is not the case.

The procedure by which a LTCH will be evaluated by its fiscal intermediary to determine whether it will qualify as a LTCH under the revised 25-day average length of stay criterion is the same procedure presently employed under the TEFRA system. Following the review of the LTCH's most recent cost report by the fiscal intermediary, which for FY 2003 will occur following the effective date of the LTCH prospective payment system, the LTCH will be notified whether, based on that cost report, it satisfies the greater than 25-day average length of stay requirement for its Medicare patients for payment as a LTCH under the LTCH prospective payment system. As noted above, the LTCH will become subject to this revised criterion for its first cost reporting period beginning on or after October 1, 2002.

A LTCH with a cost reporting year of October 1, 2002 through September 30, 2003 that does not qualify as a LTCH under the new criterion based on its FY 2001 cost report will continue to be paid as a LTCH until October 1, 2003. The hospital will then be paid as an acute care hospital unless it demonstrates that, during the 6 months prior to October 1, 2003, it had an average Medicare inpatient length of stay of greater than 25 days (§ 412.23(e)(3)(ii)). Therefore, under the scenario presented by the commenter in which the LTCH that failed the 25-day average length of stay requirement for its Medicare patients during one fiscal year because the pivotal discharge for that year was forced into the next year by the interrupted stay policy, the LTCH would not lose its designation if it could present 6 months of data indicating compliance with the new requirement

for the period preceding the cost reporting period for which it would lose its designation.

*Comment:* Three commenters recommended that CMS change the day requirement in the average length of stay criterion. One commenter recommended lowering the 25 days to 20 days. Another commenter recommended requiring that only 95 percent of all LTCHs meet the 25-day requirement. The third commenter recommended changing the length of stay criterion so that it is computed based on the median length of stay rather than the average length of stay.

*Response:* Section 1886(d)(1)(B)(iv)(I) of the Act defines a LTCH as “\* \* \* a hospital which has an *average* inpatient length of stay (as determined by the Secretary) of greater than 25 days” (emphasis added). Although the Secretary has been granted broad authority in defining how the statute is implemented, section 1886(d)(1)(B)(iv)(I) of the Act clearly and unambiguously establishes the 25-day standard and the use of the average in the computation. The changes suggested by the commenters would require legislative action.

*Comment:* One commenter questioned why CMS decided to limit the average 25-day length of stay criterion to Medicare patients only, but in establishing the prospective payment system for IRFs, the “75 percent rule” was applied to all patients, regardless of payer source.

*Response:* The only requirement imposed by section 1886(d)(1)(B)(iv)(I) of the Act that differentiates a LTCH from another acute hospital is the average length of stay requirement. In addition, as stated earlier, our data revealed that a considerable proportion of Medicare patients are not receiving “long-term care” at LTCHs. The revision was proposed on the basis of the calculation of the greater than 25-day length of stay requirement, but did not restrict the patient census of the LTCH. Notwithstanding the proposed revision, a LTCH is free to admit and treat any patient it believes is clinically appropriate. Should that LTCH admit a short-stay Medicare patient, under this final rule the stay will be paid for under the short-stay outlier policy (section X.C. of this preamble and § 412.529 of the final regulations).

The objective of our revised policy is to establish a payment system for the care of Medicare patients at LTCHs that truly require the type of care and resources available at LTCHs and, therefore, incur costs to the Medicare system in accordance with such treatment. Should a LTCH admit many

short-stay Medicare patients, it could well jeopardize its ability to participate under Medicare as a LTCH.

We are currently reviewing criteria for qualifying as an IRF, including the 75-percent rule, to determine whether any changes to the policy or administrative procedures for enforcing it are appropriate. Accordingly, rather than making changes to the types of patients used in calculating the 75 percent criterion at this time, we intend to address this issue as it affects IRFs when we address all of the qualifying criteria.

*Comment:* One commenter pointed out that as a LTCH improves its efficiency under the LTCH prospective payment system, the result could be shorter lengths of stay for Medicare patients, an outcome that would jeopardize the hospital’s status as a LTCH.

*Response:* We agree with the commenter that as a LTCH becomes more efficient, its average length of stay may be reduced. Our experience with implementing other prospective payment systems under Medicare encourages us to believe that, even under circumstances of providing treatment for the most severely ill patient, quality of care can be preserved and even be improved once hospitals adapt to such a payment system. Our data, reflecting LTCHs throughout the country as well as acute care hospitals that treat patients who could also be treated in LTCHs, reveal a range of lengths of stay for the same diagnoses. If this reduction brings the hospital’s average length of stay to 25 days or less, the hospital would lose its LTCH status. However, the requirements for both the DRG-based prospective payment system and the greater than 25-day average length of stay criterion are statutory. Any changes in these requirements must be pursued at the legislative level.

*Comment:* One commenter suggested that, since the proposed systems design for the LTCH prospective payment system was based on data gathered from all hospitals identified in our provider files as LTCHs, if CMS changed the criteria for payment under Medicare from a consideration of average lengths of stay for all patients to those of only Medicare patients, data from LTCHs that would lose their designation under this change should be excluded from payment modeling.

*Response:* Payment modeling for the LTCH prospective payment system was based on an analysis of data from existing LTCHs on their Medicare patients, costs, charges, and payments. The commenter appears to presume the following: That as of October 1, 2002, existing LTCHs not qualifying under the

revised average length of stay requirement would lose their designation as LTCHs and that data from these hospitals should therefore not be included in payment simulations and policy determinations. We disagree with the commenter’s points. The revised length of stay policy is a requirement of the prospective payment system for LTCHs and will become effective for any LTCH when that hospital becomes subject to the prospective payment system, that is, when the LTCH starts its first cost reporting period that begins on or after October 1, 2002. It is not appropriate to determine whether a hospital meets the new length of stay criterion for our modeling purposes. Changes in a hospital’s status are effective only at the beginning of a cost reporting period and are effective for the entire cost reporting period under existing § 412.22(d). For example, if an existing LTCH with a cost reporting period that begins on October 1, 2002, does not meet the 25-day average length of stay criterion according to its fiscal intermediary’s determination, the LTCH would not lose its LTCH status earlier than October 1, 2003, the beginning of its next cost reporting period. If in the 6 months prior to October 1, 2003, the hospital demonstrated an average length of stay of greater than 25 days for its Medicare patients, the hospital would continue to be paid as a LTCH even after October 1, 2003. We believe that LTCHs have a strong incentive to reevaluate their admission policies based on this new criterion, and that many of the LTCHs that presently may not meet the new requirement may achieve compliance when required and not lose their LTCH status. In addition, including the data from those hospitals that currently treat Medicare patients with an average length of stay of 25 days or less is appropriate. As explained in section X.A.2. of this preamble, in calculating the relative weights for each LTC-DRG, we adjusted the weight for short-stay outlier cases based on the average costs for that LTC-DRG. This adjustment allowed us to appropriately include more cases in the calculation of the LTC-DRG relative weight. Accordingly, we disagree with the commenter and did not remove data from those hospitals in developing the LTCH prospective payment system.

After consideration of public comments received on the proposed change in the average 25-day length of stay requirement for LTCHs, in this final rule we are adopting the proposed change as final with one clarification. Under this final rule, we will determine

the average inpatient length of stay in a LTCH, for purposes of section 1886(d)(1)(B)(iv)(I) of the Act, for the hospital's Medicare patients, but not non-Medicare patients. In addition, we are clarifying that the hospital's 25-day average Medicare inpatient length of stay includes all inpatient days (covered and noncovered) of Medicare patients' stays at the LTCH.

In addition, as we indicated in the proposed rule and as authorized under the statute, we are changing the methodology for determining the average inpatient length of stay for purposes of section 1886(d)(1)(B)(iv)(I) of the Act, but we are not changing the methodology for purposes of section 1886(d)(1)(B)(iv)(II) of the Act (§ 412.23(e)). For purposes of the latter provision (subclause (II)), we are retaining the current methodology (which includes non-Medicare as well as Medicare patients) because we believe that the considerations underlying the change in methodology for subclause (I) are not present under subclause (II). As discussed above, we are revising the methodology for purposes of the general definition of LTCH under subclause (I) because under the current methodology some hospitals that might not warrant exclusion from the acute care hospital inpatient prospective payment system have nevertheless obtained status as excluded hospitals. We believe that excluding non-Medicare patients in determining the average inpatient length of stay for purposes of subclause (I) would be more appropriate in identifying the hospitals that warrant exclusion under the general definition of LTCH in subclause (I). However, in enacting subclause (II), Congress provided an exception to the general definition of LTCH under subclause (I), and we have no reason to believe that the change in methodology for determining the average inpatient length of stay would better identify the hospitals that Congress intended to exclude under subclause (II).

We will monitor the types of hospitals that will qualify as LTCHs based on the revised 25-day length of stay criterion. It is possible that hospitals that currently qualify as either rehabilitation hospitals or psychiatric hospitals will now also qualify as LTCHs under the revised criterion and will choose to be LTCHs and be paid as LTCHs. We also will monitor whether the change in methodology for measuring the average length of stay in LTCHs will result in unanticipated shifts of patients to IRFs and psychiatric facilities. If this pattern of behavior is observed, we will address it at that time.

### 3. LTCHs Not Subject to the LTCH Prospective Payment System

In this final rule, we are specifying that only hospitals qualifying as LTCHs under the revised criteria described in section VIII.B.1. and 2. of this preamble and in revised § 412.23(e) by October 1, 2002, will be subject to the LTCH prospective payment system. Our treatment of new hospitals first qualifying as LTCHs on or after October 1, 2002, is addressed in section X.O. of this final rule.

The following hospitals are paid under special payment provisions, as described in existing § 412.22(c) and, therefore, will not be subject to the LTCH prospective payment system rules:

- Veterans Administration hospitals.
- Hospitals that are reimbursed under State cost control systems approved under 42 CFR Part 403.
- Hospitals that are reimbursed in accordance with demonstration projects authorized under section 402(a) of Public Law 90-248 (42 U.S.C. 1395b-1) or section 222(a) of Public Law 92-603 (42 U.S.C. 1395b-1 (note)) (statewide all-payer systems, subject to the rate-of-increase test at section 1814(b) of the Act).
- Nonparticipating hospitals furnishing emergency services to Medicare beneficiaries.

### C. Limitation on Charges to Beneficiaries

In accordance with existing regulations and for consistency with other established hospital prospective payment systems policies, we are specifying in this final rule that a LTCH may not charge a beneficiary for any services for which a full DRG payment is made by Medicare, even if the hospital's costs of furnishing services to that beneficiary are greater than the amount the hospital will be paid for those services under the LTCH prospective payment system (§ 412.507).

In the proposed rule under § 412.507(b), we specified that a LTCH receiving a prospective payment for a covered hospital stay may charge the Medicare beneficiary or other person only for the applicable deductible and coinsurance amounts under §§ 409.82, 409.83, and 409.87 of the existing regulations, and for items or services specified under § 489.20(a) of the existing regulations.

*Comment:* Some commenters expressed concern with the interaction of the proposed reduced per discharge payments for both very short-stay discharges and short-stay outliers and the requirements at proposed § 412.507

of the regulations which limit the amount the LTCH may bill the beneficiary and the effect this will have on Medigap payments.

*Response:* We have reviewed our proposed policy and have concluded that the language in proposed § 412.507 requires clarification. We proposed that beneficiaries who had exhausted their Part A coverage prior to two-thirds of the average length of stay (changed in this final rule to five-sixths of the geometric average length of stay) for each LTC-DRG to receive payments as short-stay outliers. The commenters' questions regarding the interaction of the short-stay outlier payment policy and Medigap indicate that the commenters also understood the intent of our short-stay policy. However, because the regulation text may not clearly indicate our intent, we are revising it to reflect this intended policy.

We are revising the language at § 412.507(b) to state that a LTCH may not bill the patient for more than the deductible and coinsurance amounts if the Medicare payment to the LTCH is the full LTC-DRG payment amount. However, if the Medicare payment is for a short-stay outlier case that is less than the full LTC-DRG payment amount, the LTCH may also charge the beneficiary for services for which the costs of those services or the days those services were provided were not a basis for calculating the Medicare short-stay outlier payment.

Proposed § 412.507(b) had stated that "A long-term care hospital that receives payment \* \* \* for a covered hospital stay (that is, a stay that includes at least one covered day) may charge the Medicare beneficiary or other person only for the applicable deductible and coinsurance amounts under §§ 409.82, 409.83, and 409.87 of this subchapter, and for items and services as specified under § 489.20(a) of this chapter." We are revising the language in the regulation, since that language could appear to have provided for payment of the *full* LTC-DRG payment (with no adjustment for a short-stay outlier) as long as the Medicare beneficiary had a stay that included at least one covered day. However, payments to LTCHs are adjusted for short-stay outliers. By revising § 412.507(b) in this final rule, we are clarifying the provision so that Medigap will be responsible for payment for the costs of those "services provided during the stay that were not the basis for the short-stay payment."

*Comment:* Several commenters have expressed concern that if Medigap insurers are only required to pay outlier rates once a patient has exhausted the Medicare-covered days (as is the case

under the existing acute care hospital inpatient prospective payment system and the IRF prospective payment system), LTCHs will most likely be seriously underpaid. The commenters asked for clarification that, under the LTCH prospective payment system, Medigap insurers are required to pay more than a mere continuation of the outlier rate since the full DRG payment will not be made in the case of an admission that occurs near the point at which the patient would exhaust his or her lifetime reserve days.

Specifically, the commenters asked that CMS issue a program memorandum to State insurance commissioners and issuers (commonly referred to as a Medigap bulletin) clarifying Medigap insurers' payment responsibilities under the new LTCH prospective payment system.

*Response:* During any covered Medicare Part A hospital benefit period, from days 61 through 90, every Medigap policy must pay the hospital coinsurance amount of one-fourth of the hospital deductible per day. For every lifetime reserve day (91st to the 150th day) that the policyholder uses, the Medigap insurer must pay the coinsurance amount of one-half of the hospital deductible. If the policyholder exhausts his or her lifetime reserve days, the Medigap insurer is required to provide "coverage of the Medicare Part A eligible expenses for hospitalization paid at the DRG day outlier per diem or other appropriate standard of payment, subject to a lifetime maximum benefit of an additional 365 days." (Section 8.B(3) of the Model Regulation for Medicare Supplement Policies developed by the National Association of Insurance Commissioners (NAIC), which is incorporated by reference into section 1882 of the Act.) The term "Medicare eligible expenses" is defined in the NAIC Model Regulation as expenses of the kinds covered by Medicare, to the extent recognized as reasonable and medically necessary by Medicare.

We have consistently interpreted this language to require that the Medigap insurer make payments at the rate Medicare would have paid, had Medicare Part A hospital days not been exhausted. Under the acute care hospital inpatient prospective payment system, even if a patient has only one day of Medicare coverage remaining at the time of admission, Medicare pays the full DRG payment amount. A Medigap insurer would simply be responsible for outliers, if any. Similarly, since patients who exhaust their Medicare covered days are frequently in outlier status already, the Medigap insurer's responsibility is

simply to continue paying what Medicare had been paying on the last day of coverage (that is, the outlier amount).

However, under the LTCH prospective payment system, the payment methodology is more complex. The LTC-DRG payment amount is based, in part, on how long the patient is expected to stay in the LTCH. The payment to the LTCH is determined after the patient is discharged, and will be reduced if the patient is discharged significantly earlier than the expected length of stay. Such stays are referred to as "short-stay outliers." The fiscal intermediary follows the formulas specified in section X.C. of this preamble to determine the actual payment amount, which is expressed in terms of an adjustment to the LTC-DRG payment.

Accordingly, if a patient with a Medigap policy exhausts Medicare covered days before being discharged from a LTCH, the only way to determine the "appropriate standard of payment" for which the Medigap insurer is responsible is to use the same methodology used by Medicare. If the beneficiary exhausted Medicare benefits while he or she is still within the period of time considered to be a "short-stay outlier," Medicare will make payment to the LTCH as if it were a short-stay, regardless of the length of stay. This means that the payment that happens to be attributed to the last day of Medicare coverage is not an accurate basis for calculating the Medigap insurer's responsibility. It may be more, or less, than the appropriate LTC-DRG payment ultimately applicable to the full stay. The Medigap insurer should use the LTCH methodology to calculate the amount Medicare would have paid for the full hospital stay, and deduct the amount paid by Medicare for the days prior to the exhaustion of benefits.

*Comment:* One commenter expressed concern that State Medicaid programs might determine the amount of Medicaid payment based on what Medicare would pay under the very short-stay policy. The existing regulations at § 447.205(b)(1) allows a State to use Medicare level of reimbursement without public notice. The commenter was concerned that very short-stay rates of payment could migrate to the Medicaid program and be used to pay hospitals without regard to the Medicaid average length of stay of a patient.

*Response:* Medicaid is a joint Federal and State program that assists with medical costs for people with low incomes and limited resources. Under the Medicaid program, States have the

option to pay based on Medicare's payment principles or other alternative methodologies, subject to the overall Medicare upper payment limitation. While, for example, some State Medicaid programs may adopt the Medicare payment policy for short-stay cases, the Medicare program has no authority to dictate payment policy to State Medicaid programs. The commenter raised a concern with the proposed very short-stay discharge payment policy. As discussed earlier in this final rule, we have eliminated the very short-stay policy and included those stays in our short-stay policy in this final rule. The final short-stay policy will pay for those cases with lengths of stay at or below five-sixths of the geometric average length of stay for the LTC-DRG at the least of: (1) 120 percent of the LTC-DRG specific per diem; (2) 120 percent of the cost of the case; or (3) the full LTC-DRG payment.

In accordance with existing regulations and for consistency with other established hospital prospective payment systems policies, we are specifying in this final rule that a LTCH may not charge a beneficiary for any services for which a full LTC-DRG payment is made by Medicare, even if the hospital's costs of furnishing services to that beneficiary are greater than the amount the hospital will be paid under the LTCH prospective payment system (§ 412.507).

#### *D. Medical Review Requirements*

In accordance with existing regulations at §§ 412.44, 412.46, and 412.48 and for consistency with other established hospital prospective payment systems policies, we proposed and are specifying in this final rule that a LTCH must have an agreement with a Quality Improvement Organization (QIO) (formerly, a Peer Review Organization (PRO)) to have the QIO review, on an ongoing basis, the medical necessity, reasonableness, and appropriateness of hospital admissions and discharges and of inpatient hospital care for which outlier payments are sought; the validity of the hospital's diagnostic and procedural information; the completeness, adequacy, and quality of the services furnished in the hospital; and other medical or other practices with respect to beneficiaries or billing for services furnished to beneficiaries (§ 412.508(a)). In addition, we are requiring that, because payment under the prospective payment system is based in part on each patient's principal and secondary diagnoses and major procedures performed, as evidenced by the physician's entries in the patient's medical record, physicians must



complete an acknowledgement statement to that effect. We are applying the existing hospital requirements for the contents and filing of the physician acknowledgment statement (§ 412.508(b)).

Also, as proposed and now codified in this final rule, consistent with existing established hospital prospective payment system policies, if CMS determines, on the basis of information supplied by the QIO, that a hospital has misrepresented admissions, discharges, or billing information or has taken an action that results in the unnecessary admission or multiple admission of individuals entitled to Part A benefits or other inappropriate medical or other practices, CMS may deny payment (in whole or in part) for LTCH hospital services related to the unnecessary or subsequent readmission of an individual or require the hospital to take actions necessary to prevent or correct the inappropriate practice. Notice and appeal of a denial of payment will be provided under procedures established to implement section 1155 of the Act. In addition, a determination of a pattern of inappropriate admissions and billing practices that has the effect of circumventing the prospective payment

system will be referred to the Department's Office of Inspector General, for handling in accordance with 42 CFR 1001.301.

*E. Furnishing of Inpatient Hospital Services Directly or Under Arrangements*

In accordance with existing regulations at § 414.15(m) and for consistency with other established hospital prospective payment systems policies, a LTCH must furnish covered services to Medicare beneficiaries either directly or under arrangements. Under § 412.509, the LTCH prospective payment will be payment in full for all covered inpatient hospital services, as defined in § 409.10 of the existing regulations. We will not pay any provider or supplier other than the LTCH for services furnished to a Medicare beneficiary who is an inpatient of the LTCH, except for those services that are not included as inpatient hospital services that are listed under existing § 412.50 (that is, physicians' services that meet the requirements of § 415.102(a) for payment on a fee schedule basis; physician assistant services as defined in section 1861(s)(2)(K)(i) of the Act;

nurse practitioners and clinical nurse specialist services, as defined in section 1861(s)(2)(K)(ii) of the Act; certified nurse midwife services, as defined in section 1861(gg) of the Act; qualified psychologist services, as defined in section 1861(ii) of the Act; and services of an anesthetist, as defined in § 410.69).

*F. Reporting and Recordkeeping Requirements*

In this final rule, we are imposing the same recordkeeping and cost reporting requirements of §§ 413.20 and 413.24 of the existing regulations on all LTCHs that will participate in the LTCH prospective payment system (§ 412.511).

*G. Transition Period for Implementation of the LTCH Prospective Payment System*

In this final rule, we are providing for a 5-year transition period from cost-based reimbursement to fully Federal prospective payment for LTCHs as discussed in section X.N. of this preamble. During this period, two payment percentages will be used to determine a LTCH's total payment under the prospective payment system. The blend percentages are as follows:

Cost reporting periods beginning on or after	Prospective payment Federal rate percentage	Cost-based reimbursement rate percentage
October 1, 2002 .....	20	80
October 1, 2003 .....	40	60
October 1, 2004 .....	60	40
October 1, 2005 .....	80	20
October 1, 2006 .....	100	0

Therefore, for a cost reporting period beginning on or after October 1, 2002, and before October 1, 2003, the total prospective payment will consist of 80 percent of the amount based on the current reasonable cost-based reimbursement system and 20 percent of the Federal prospective payment rate. The percentage of payment based on the LTCH prospective payment Federal rate will increase by 20 percent and the reasonable cost-based reimbursement rate percentage will decrease by 20 percent for each of the remaining 4 fiscal years in the transition period. For cost reporting periods beginning on or after October 1, 2006, Medicare payment to LTCHs will be determined entirely under the Federal prospective payment system methodology. Furthermore, LTCHs subject to the blend have the option to elect to be paid 100 percent of the Federal rate and not be subject to the 5-year transition.

Section X.N. of this final rule contains a detailed description of our payment policies during the 5-year transition period, the public comments received on our proposal and our responses to those comments, and a discussion of changes in the claims processing procedures for an interim period of October 1, 2002 until the date of the systems implementation, because of a delay in system changes necessary for us to accommodate claims processing under the LTCH prospective payment system.

*H. Implementation Procedures*

In the March 22, 2002 proposed rule, we proposed procedures for implementing the LTCH prospective payment system. Section X. of this final rule contains more details on the application of these procedures. In summary, upon the discharge of the patient from a LTCH, the LTCH must assign appropriate diagnosis and

procedure codes from the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM). Under a requirement of the Health Insurance Portability and Accountability Act of 1996 (HIPAA), Public Law 104-191, electronic health care claims, including Medicare claims, will be required to be in the new national standard claims format and medical data code sets in accordance with regulations at 45 CFR Parts 160 and 162. Beginning on October 16, 2002, a LTCH that is required to comply with the HIPAA Administrative Simplification Standards and that has not obtained an extension in compliance with the Administrative Compliance Act (Public Law 107-105) must comply with the standards at 42 CFR 162.1002 and 45 CFR 162.1102 and submit the completed claims form to its Medicare fiscal intermediary. The Medicare fiscal intermediary will enter the information into its claims



processing systems and subject it to a series of edits called the Medicare Code Editor (MCE). This editor is designed to identify cases that will require further review before classification into a LTC-DRG (described in section X. of this final rule).

After screening through the MCE, each claim will be classified into the appropriate LTC-DRG by the Medicare LTCH GROUPE. The LTCH GROUPE is specialized computer software based on the GROUPE utilized by the acute care hospital inpatient prospective payment system, which was developed as a means of classifying each case into a DRG on the basis of diagnosis and procedure codes and other demographic information (age, sex, and discharge status). Following the LTC-DRG assignment, the Medicare fiscal intermediary will determine the prospective payment by using the Medicare PRICER program, which accounts for hospital-specific adjustments.

As provided for under the acute care hospital inpatient prospective payment system, we are providing an opportunity for the LTCH to review the LTC-DRG assignments made by the fiscal intermediary (§ 412.513(c)). A hospital will have 60 days after the date of the notice of the initial assignment of a discharge to a LTC-DRG to request a review of that assignment. The hospital will be allowed to submit additional information as part of its request. The fiscal intermediary will review that hospital's request and any additional information and will decide whether a change in the LTC-DRG assignment is appropriate. If the intermediary decides that a different LTC-DRG should be assigned, the appropriate QIO, as specified in § 476.71(c)(2), will review the case. Following this 60-day period, the hospital will not be able to submit additional information with respect to the LTC-DRG assignment or otherwise revise its claim.

*Comment:* One commenter requested that we allow a LTCH 90 days instead of 60 days following the date of the notice of the initial assignment of a discharge to a LTC-DRG to request a review of that assignment during the 5-year phase-in of the prospective payment system.

*Response:* We do not believe that an extension of the 60-day window for a LTCH to request a review of the LTC-DRG assignment by the fiscal intermediary is warranted. The ICD-9-CM coding system, on which the discharge from the LTCH will be based, has been in use in the United States since 1979, and all hospitals have been required to use this system for

submission of Medicare claims. The patient classification system (LTC-DRGs) that we have chosen for the LTCH prospective payment system is based on the existing DRG system for acute care hospitals, which is familiar to coders, physicians, and providers. In addition, the timeframe is consistent with the existing 60-day timeframe allowed under the acute care hospital inpatient prospective payment system for hospitals to request review of DRG assignments by the fiscal intermediary (§ 412.60(d)). We do not believe that any change in the timeframe is warranted here because the provider is a LTCH.

As discussed in detail in section X.N. of this final rule, we will not have in place before January 1, 2003, the standard computer systems changes necessary to accommodate claims processing and payment under the LTCH prospective payment system. However, beginning October 16, 2002, we are requiring all LTCHs that are required to comply with the HIPAA Administrative Simplification Standards and that have not obtained an extension in compliance with the Administrative Compliance Act, Public Law 107-105, to submit their claims in compliance with the standards at 42 CFR 162.1002 and 45 CFR 162.1102 to their fiscal intermediaries using the ICD-9-CM coding. We intend that, as of January 1, 2003, the fiscal intermediary will reconcile the payment amounts that have been made to LTCHs for all covered inpatient hospital services furnished to Medicare beneficiaries from cost reporting periods that begin on or after October 1, 2002 until the date of the systems implementation, with the amounts that are payable under the LTCH prospective payment methodology. We will issue specific operational instructions to fiscal intermediaries and providers for completing and submitting Medicare claims under the LTCH prospective payment system through a Medicare Program Memorandum prior to the effective date of this final rule.

Although our computer systems will continue to make payments as in the past for an interim period after October 1, 2002, Medicare payments to LTCHs will be reconciled after January 1, 2003, based on the LTC-DRGs as determined by the ICD-9-CM codes recorded on the patient claims. Therefore, we urge LTCHs to focus on improved coding practices, which are addressed in section IX.E. of this final rule.

In proposed § 412.535, we proposed a schedule for publishing information on the LTCH prospective payment system for each fiscal year in the **Federal Register**, prior to the start of each fiscal

year, on or before August 1. This cycle coincides with the statutorily mandated publication schedule for the acute care hospital inpatient prospective payment system. Section 1886(e)(5)(A) of the Act requires that, for the acute care hospital inpatient prospective payment system, the proposed rule be published in the **Federal Register** "not later than the April 1 before each fiscal year; and the final rule, not later than the August 1 before such fiscal year." The Act imposes no such publication schedule for the LTCH prospective payment system. Therefore, in order to avoid concurrent publication of annual rules for these two systems, for purposes of administrative feasibility and efficiency, we will be considering a change in the publication schedule for updating the LTCH prospective payment system to July 1 of each year. We will address this issue in a future proposed rule.

#### **IX. Long-Term Care Diagnosis-Related Group (LTC-DRG) Classifications**

Section 307(b)(1) of Public Law 106-554 requires that the Secretary examine "the feasibility and the impact of basing payment under such a system [the LTCH prospective payment system] on the use of existing (or refined) hospital diagnosis-related groups (DRGs) that have been modified to account for different resource use of long-term care hospital patients as well as the use of the most recently available hospital discharge data." The LTC-DRG-based patient classification system we describe in this section is based on the existing CMS-DRG system used in the acute care hospital inpatient prospective payment system. As required by section 307(b)(1) of Public Law 106-554, we examined the feasibility and the impact of basing payment on the use of existing (or refined) hospital DRGs that have been modified to account for different resource use of LTCH patients.

Therefore, an overview of pertinent facts about the existing CMS-DRG system is essential to an understanding of the LTC-DRGs that are employed in the LTCH prospective payment system.

As discussed below, we proposed the implementation of LTC-DRGs as a patient classification system for the LTCH prospective payment system. The LTC-DRGs classify patient discharges based on the principal diagnosis, up to eight additional diagnoses, and up to six procedures performed during the stay, as well as age, sex, and discharge status of the patient. We began the development of the LTC-DRGs system described in our proposed rule by using the CMS-DRGs that are currently used in the acute care hospital inpatient prospective payment system with the

most recent data available from the FY 2000 MedPAR file. For this final rule, we used data from the FY 2001 MedPAR file. In a departure from the acute care hospital inpatient prospective payment system, we also proposed the concept of the use of low volume LTC-DRGs (less than 25 LTCH cases) in determining the LTC-DRG weights, since LTCHs do not typically treat the full range of diagnoses as do acute care hospitals.

#### A. Background

The design and development of DRGs began in the late 1960s at Yale University. The initial motivation for developing the DRGs was the creation of an effective framework for monitoring the quality of care and the utilization of services in a hospital setting. The first large-scale application of the DRGs as a basis for payments was in the late 1970s in New Jersey. The New Jersey State Department of Health used DRGs as the basis of a prospective payment system in which hospitals were reimbursed a fixed DRG-specific amount for each patient treated. In 1972, section 223 of Public Law 92-603 originally authorized the Secretary to set limits on costs reimbursed under Medicare for inpatient hospital services.

In 1982, section 101(b)(3) of Public Law 97-248 required the Secretary to develop a legislative proposal for Medicare payments to hospitals, SNFs, and, to the extent feasible, other providers on a prospective basis. (See the September 1, 1983 **Federal Register** (48 FR 39754).) In 1983, Title VI of Public Law 98-21 added section 1886(d) to the Act, which established a national DRG-based hospital prospective payment system for Medicare inpatient acute care services. (See the January 3, 1984 **Federal Register** (49 FR 234).)

#### B. Historical Exclusion of LTCHs

Since the hospital inpatient DRG system had been developed from the cost and utilization experience of short-term, acute care hospitals, it did not account for the resource costs for the types of patients treated in hospitals such as rehabilitation, psychiatric, and children's hospitals, as well as LTCHs and rehabilitation and psychiatric units of acute care hospitals. Therefore, the statute (section 1886(d)(1)(B) of the Act) excluded these classes of hospitals and units from the prospective payment system for short-term acute care hospitals. The excluded hospitals and units continued to receive payments based on costs subject to a cap on each facility's per discharge costs during a base year, with a yearly update as set forth in Public Law 97-248. (Cancer hospitals were added to the list of

excluded hospitals by section 6004(a) of Public Law 101-239.)

#### C. Patient Classifications by DRGs

##### 1. Objectives of the Classification System

The DRGs are a patient classification system that provides a means of relating the type of patients treated by a hospital (that is, its case-mix) to the costs incurred by the hospital. In other words, DRGs relate a hospital's case-mix to the resource intensity experienced by the hospital. That is, a hospital that has a more complex case-mix treats patients who require more hospital resources.

While each patient is unique, groups of patients have demographic, diagnostic, and therapeutic attributes in common that determine their level of resource intensity. Given that the purpose of DRGs is to relate a hospital's case-mix to its resource intensity, it was necessary to develop a way of determining the types of patients treated and to relate each patient type to the resources they consumed. In the development of the existing CMS-DRGs, in order to aggregate patients into meaningful patient classes, it was essential to develop clinically similar groups of patients with similar resource intensity. The characteristics of a practical and meaningful DRG system were distilled into the following objectives:

- The patient characteristics should be limited to information routinely collected on hospital abstract systems.
- There should be a manageable number of DRGs encompassing all patients.
- Each DRG should contain patients with a similar pattern of resource intensity.
- DRGs should be clinically coherent, that is, containing patients who are similar from a clinical perspective.

Under a DRG-based system, patient information routinely collected include the following six data items: principal diagnosis, secondary or additional diagnoses, procedures, age, gender, and discharge status. All hospitals routinely collect this information. Therefore, a classification system based on these elements could be applied uniformly across hospitals.

Limiting the number of DRGs to a manageable total (that is, hundreds of patient classes instead of thousands) ensures that, for most of the DRGs, hospital discharge data would allow for meaningful comparative analysis to be performed. If a hospital has a sufficient number of cases in particular DRGs, this will allow for evaluations and comparisons of resource consumption

by patients grouped to those DRGs, as compared to resources consumed by patients grouped to other DRGs. A large number of DRGs with only a few patients in each group would not provide useful patterns of case-mix complexity and cost performance.

The resource intensity of the patients in each DRG must be similar in order to establish a relationship between the case-mix of a hospital and the resources it consumes. (Similar resource intensity means that the resources used are relatively consistent across the patients in each DRG.) In implementing the original DRGs for the acute care hospital inpatient prospective payment system, we recognized that some variation in resource intensity would be present among the patients in each DRG, but the level of variation would be identifiable and predictable.

The last characteristic for an effective patient classification system is that the patients in a DRG are similar from a clinical perspective; that is, the definition of a DRG has to be clinically coherent. This objective requires that the patient characteristics included in the definition of each DRG be related to a common organ system or etiology, and that a specific medical specialty should typically provide care to the patients in a particular DRG.

##### 2. DRGs and Medicare Payments

The LTC-DRGs used as the patient classification component of the LTCH prospective payment system correspond to the DRGs in the acute care hospital inpatient prospective payment system. We modified the CMS-DRGs for the LTCH prospective payment system by developing LTCH-specific relative weights to account for the fact that LTCHs generally treat patients with multiple medical problems. As background to understand our use of LTC-DRGs in the LTCH prospective payment system, we are presenting a brief review of the DRG patient classification system in the acute care hospital inpatient prospective payment system.

Generally, under the prospective payment system for short-term, acute care hospital inpatient services, Medicare payment is made at a predetermined, specific rate for each discharge; that payment varies by the DRG to which a beneficiary's stay is assigned. Cases are classified into DRGs for payment based on the following six data elements:

- (1) Principal diagnosis.
- (2) Up to eight additional diagnoses.
- (3) Up to six procedures performed.
- (4) Age.
- (5) Sex.

## (6) Discharge status of the patient.

Hospitals report the diagnostic and procedure information from the patient's hospital record using the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) codes on the uniform billing form currently in use, which is submitted to the Medicare fiscal intermediaries.

Medicare fiscal intermediaries enter the clinical and demographic information into their claims processing systems and subject it to a series of automated screening processes called the Medicare Code Editor (MCE). These screens are designed to identify cases that require further review before assignment into a DRG can be made. During this process, the following type of cases are selected for further development:

- Cases that are improperly coded. (For example, diagnoses are shown that are inappropriate, given the sex of the patient. Code 68.6, Radical abdominal hysterectomy, would be an inappropriate code for a male.)

- Cases including surgical procedures not covered under Medicare (for example, organ transplant in a nonapproved transplant center).

- Cases requiring more information. (For example, ICD-9-CM codes are required to be entered at their highest level of specificity. There are valid 3-digit, 4-digit, and 5-digit codes. That is, code 136.3, Pneumocystosis, contains all appropriate digits, but if it is reported with either fewer or more than 4 digits, the claim will be rejected by the MCE as invalid.)

- Cases with principal diagnoses that do not usually justify admission to the hospital. (For example, code 437.9, Unspecified cerebrovascular disease. While this code is valid according to the ICD-9-CM coding scheme, a more precise code should be used for the principal diagnosis.)

After screening through the MCE and after any further development of the claims, cases are classified into the appropriate DRG by a software program called the GROUPER using the six data elements noted above.

The GROUPER is used both to classify past cases in order to measure relative hospital resource consumption to establish the DRG weights and to classify current cases for purposes of determining payment. The records for all Medicare hospital inpatient discharges are maintained in the MedPAR file. The data in this file are used to evaluate possible DRG classification changes and to recalibrate the DRG weights during our annual update.

The DRGs are organized into 25 Major Diagnostic Categories (MDCs), most of which are based on a particular organ system of the body; the remainder involve multiple organ systems (such as MDC 22, Burns). Accordingly, the principal diagnosis determines MDC assignment. Within most MDCs, cases are then divided into surgical DRGs and medical DRGs. While we do not anticipate large numbers of surgical cases in LTCHs, surgical DRGs are assigned based on a surgical hierarchy that orders operating room (O.R.) procedures or groups of O.R. procedures by resource intensity. Generally, the GROUPER does not recognize certain other procedures; that is, those procedures not surgical (for example, EKG), or minor surgical procedures generally not performed in an operating room and, therefore, not considered as surgical by the GROUPER (for example, 86.11, Biopsy of skin and subcutaneous tissue).

The medical DRGs are generally differentiated on the basis of diagnosis. Both medical and surgical DRGs may be further differentiated based on age, discharge status, and presence or absence of complications or comorbidities (CC). It should be noted that CCs are defined by certain secondary diagnoses not related to, or inherently a part of, the disease process identified by the principal diagnosis. (For example, the GROUPER would not recognize a code from the 800.0x series, Skull fracture, as a CC when combined with principal diagnosis 850.4, Concussion with prolonged loss of consciousness, without return to preexisting conscious level.) In addition, we note that the presence of additional diagnoses does not automatically generate a CC, as not all DRGs recognize a comorbid or complicating condition in their definition. (For example, DRG 466, Aftercare without History of Malignancy as Secondary Diagnosis, is based solely on the principal diagnosis, without consideration of additional diagnoses for DRG determination.)

#### *D. LTC-DRG Classification System for LTCHs*

Unless otherwise noted, our analysis of a per discharge DRG-based patient classification system is based on LTCH data from the FY 2001 MedPAR file, which contains hospital bills received through May 31, 2001, for hospital discharges occurring in FY 2001.

The patient classification system for the LTCH prospective payment system is based on the acute care hospital inpatient prospective payment system currently used for Medicare

beneficiaries. Within the LTCH data set, as identified by provider number, we classified all cases to the CMS-DRGs. For the proposed rule, we identified individual LTCH cases with a length of stay equal to or less than 7 days and grouped them into two very short-stay LTC-DRGs, which we discussed in detail (67 FR 13434 and 13453-13454). However, as discussed later in section X.D. of this preamble, we are not adopting the proposed very short-stay discharge policy in this final rule. Instead, we are revising the short-stay outlier policy to take into account adjustments to payments for cases in which the stay at the LTCH is five-sixths of the geometric average length of stay for LTCHs.

As a result, the patient classification system consists of 510 DRGs that form the basis of the FY 2003 LTCH prospective payment system GROUPER. The 510 LTC-DRGs include two "error DRGs". As in the acute care hospital inpatient prospective payment system, we are including two error DRGs in which cases that cannot be assigned to valid DRGs will be grouped. These two error DRGs are DRG 469 (Principal Diagnosis Invalid as a Discharge Diagnosis) and DRG 470 (Ungroupable). (See 66 FR 40062, August 1, 2001.) The other 508 LTC-DRGs are the same DRGs used in the acute care hospital inpatient prospective payment system GROUPER for FY 2003 (Version 20.0). Therefore, cases submitted to the fiscal intermediaries will be processed using the data elements, MCE, and the GROUPER system already in place for the acute care hospital inpatient prospective payment system as described above.

Although payments to LTCHs will be made for the 3-month period following the effective date of the LTCH prospective payment system on October 1, 2002 under the existing electronic claims processing procedure, using ICD-9-CM coding, LTCH payments will be reconciled once the claims processing systems are changed to recognize the new LTCH prospective payment system. LTCHs will be paid based on the LTC-DRGs as determined by the ICD-9-CM codes recorded on the patient claims. Therefore, we would urge LTCHs to focus on improved coding practices, which are addressed in section IX.E. of this final rule.

#### *E. ICD-9-CM Coding System*

##### *1. Historical Use of ICD-9-CM Codes*

The Ninth Revision of the International Classification of Diseases, Clinical Modification, was adapted for use in the United States in 1979. This

coding system is the basis for the CMS-DRGs, upon which the LTC-DRGs are based. The ICD-9-CM codes have historically been used on all hospital inpatient claims submitted to CMS for payment. Volumes 1 and 2 of the ICD-9-CM coding scheme (including the *Official ICD-9-CM Guidelines for Coding and Reporting*) describe diagnoses, including diseases, injuries, impairments, other health problems, their manifestations, and their causes. The ICD-9-CM Volume 3 describes procedures performed on patients (including the *Official ICD-9-CM Guidelines for Coding and Reporting*). These guidelines are available through a number of sources, including the following Web site: <http://www.cdc.gov/nchs/data/icdguide.pdf>.

We note that should the Secretary, in the future, adopt a different medical data code set, hospitals participating in the Medicare program would be required to use that code set.

## 2. Uniform Hospital Discharge Data Set (UHDDS) Definitions

Because the assignment of a case to a particular LTC-DRG will determine the amount that will be paid for the case, it is important that the coding is accurate. Classifications and terminology used in the LTCH prospective payment system will be consistent with the ICD-9-CM and the UHDDS, as recommended to the Secretary by the National Committee on Vital and Health Statistics ("Uniform Hospital Discharge Data: Minimum Data Set, National Center for Health Statistics, April 1980") and as revised in 1984 by the Health Information Policy Council (HIPC) of the U.S. Department of Health and Human Services.

We wish to point out that the ICD-9-CM coding terminology and the definitions of principal and other diagnoses of the UHDDS are consistent with the requirements of the HIPAA Administrative Simplification Act of 1996 (45 CFR Part 162). Furthermore, the UHDDS has been used as a standard for the development of policies and programs related to hospital discharge statistics by both governmental and nongovernmental sectors for over 30 years. In addition, the following definitions (as described in the 1984 Revision of the Uniform Hospital Discharge Data Set, approved by the Secretary of Health and Human Services for use starting January 1986) are requirements of the ICD-9-CM coding system, and have been used as a standard for the development of the CMS-DRGs:

- Diagnoses include all diagnoses that affect the current hospital stay.

- Principal diagnosis is defined as the condition established after study to be chiefly responsible for occasioning the admission of the patient to the hospital for care.

- Other diagnoses (also called secondary diagnoses or additional diagnoses) are defined as all conditions that coexist at the time of admission, that develop subsequently, or that affect the treatment received or the length of stay or both. Diagnoses that relate to an earlier episode of care that have no bearing on the current hospital stay are excluded.

All procedures performed will be reported. This includes those that are surgical in nature, carry a procedural risk, carry an anesthetic risk, or require specialized training.

As discussed in section VIII.H. of this final rule and consistent with the procedures for review of CMS-DRGs under the acute care hospital inpatient prospective payment system, we are providing LTCHs with a 60-day window after the date of the notice of the initial LTC-DRG assignment to request review of that assignment. Additional information may be provided by the LTCH to the fiscal intermediary as part of that review.

## 3. Maintenance of the ICD-9-CM Coding System

In September 1985, the ICD-9-CM Coordination and Maintenance (C&M) Committee was formed. This is a Federal interdepartmental committee, co-chaired by the National Center for Health Statistics (NCHS) and CMS, that is charged with maintaining and updating the ICD-9-CM system. The C&M Committee is jointly responsible for approving coding changes, and developing errata, addenda, and other modifications to the ICD-9-CM to reflect newly developed procedures and technologies and newly identified diseases. The C&M Committee is also responsible for promoting the use of Federal and non-Federal educational programs and other communication techniques with a view toward standardizing coding applications and upgrading the quality of the classification system.

The NCHS has lead responsibility for the ICD-9-CM diagnosis codes included in the Tabular List and Alphabetic Index for Diseases, while CMS has lead responsibility for the ICD-9-CM procedure codes included in the Tabular List and Alphabetic Index for Procedures.

The C&M Committee encourages participation by health-related organizations in the above process. In this regard, the committee holds public

meetings for discussion of educational issues and proposed coding changes. These meetings provide an opportunity for representatives of recognized organizations in the coding field, such as the American Health Information Management Association (AHIMA) (formerly American Medical Record Association (AMRA)), the American Hospital Association (AHA), and various physician specialty groups, as well as physicians, medical record administrators, health information management professionals, and other members of the public to contribute ideas on coding matters. After considering the opinions expressed at the public meetings and those comments submitted in writing, the C&M Committee formulates recommendations, which then must be approved by the heads of the respective agencies.

The C&M committee presents proposals for coding changes at two public meetings per year held at the CMS Central Office located in Baltimore, Maryland. The agenda and date of the meeting can be accessed on the CMS Web site at: <http://www.cms.gov/medicare/icd9cm.asp>.

After consideration of public comments received at both meetings and in writing, CMS publishes the coding changes in the annual proposed and final rules in the **Federal Register** on Medicare program changes to the short-term, acute care hospital inpatient prospective payment system. For example, new codes effective for discharges on or after October 1, 2002, can be found in Tables 6A through 6F of the August 1, 2002 hospital inpatient prospective payment system and rates for FY 2003 final rule (67 FR 50239 through 50243).

All changes to the ICD-9-CM coding system affecting DRG assignment are addressed annually in the acute care hospital inpatient prospective payment system proposed and final rules. Since the DRG-based patient classification system for the LTCH prospective payment system is based on the acute care hospital inpatient prospective payment system DRGs, these changes will also affect the LTCH prospective payment system DRG patient classification system. As coding changes may have an impact on DRG assignment, LTCHs will be encouraged to obtain and correctly use the most current edition of the ICD-9-CM codes. The official version of the ICD-9-CM codes is available on CD-ROM from the U.S. Government Printing Office. The FY 2003 version can be ordered by contacting the Superintendent of Documents, U.S. Government Printing

Office, Dept. 50, Washington, DC 20402-9329, telephone: (202) 512-1800. The stock number is not available at this time, but the price is \$22.00. This version will go out of date on October 1, 2002. LTCHs can also order the CD-ROM online at <http://www.bookstore.gpo.gov>. In addition, private vendors also publish the ICD-9-CM Codes in book and electronic formats.

Copies of the procedure portion only of the ICD-9-CM Coordination and Maintenance Committee minutes can be obtained from the CMS Web site at: <http://www.cms.gov/medicare/icd9cm.asp>. There is a direct link to NCHS's Web site from this Web site. We encourage commenters to address suggestions on coding issues involving diagnosis codes to: Donna Pickett, Co-Chairperson, ICD-9-CM Coordination and Maintenance Committee, NCHS Room 1100, 6525 Belcrest Road, Hyattsville, MD 20782. Comments may be sent by e-mail to: [dfp4@cdc.gov](mailto:dfp4@cdc.gov).

Questions and comments concerning the procedure codes should be addressed to: Patricia E. Brooks, Co-Chairperson, ICD-9-CM Coordination and Maintenance Committee, CMS, Center for Medicare Management, Purchasing Policy Group, Division of Acute Care, Mail Stop C4-08-06, 7500 Security Boulevard, Baltimore, MD 21244-1850. Comments may be sent by e-mail to: [pbrooks@cms.hhs.gov](mailto:pbrooks@cms.hhs.gov).

As noted above, the ICD-9-CM code changes that have been approved would become effective at the beginning of the Federal fiscal year, October 1. Of particular note to LTCHs will be the invalid diagnosis codes (Table 6C) and the invalid procedure codes (Table 6D) located in the annual proposed and final rules of the acute care hospital inpatient prospective payment system. Claims with invalid codes will not be processed by the Medicare claims processing system.

As noted above, the ICD-9-CM code changes that have been approved would become effective at the beginning of the Federal fiscal year, October 1. Of particular note to LTCHs will be the invalid diagnosis codes (Table 6C) and the invalid procedure codes (Table 6D) located in the annual proposed and final rules of the acute care hospital inpatient prospective payment system. Claims with invalid codes will not be processed by the Medicare claims processing system.

#### 4. Coding Rules and Use of ICD-9-CM Codes in LTCHs

The emphasis on the need for proper coding cannot be overstated. Inappropriate coding of cases can adversely affect the uniformity of cases in each LTC-DRG and produce inappropriate weighting factors at recalculation.

Although payments to LTCHs will be made for the 3-month period following the effective date of the LTCH prospective payment system on October 1, 2002, using the existing electronic claims processing procedure, LTCH payments will be reconciled once the claims processing systems are changed to recognize the new LTCH prospective

payment system. LTCHs will be paid based on the LTC-DRGs as determined by the ICD-9-CM codes recorded on the patient claims. Therefore, we are urging LTCHs to focus on improved coding practices which are addressed in section IX.E. of this final rule.

Because of our concern with correct coding practice, CMS has been working with AHA's Editorial Advisory Board on its publication, *Coding Clinic for ICD-9-CM*, since 1984. The *Coding Clinic* was developed to improve the accuracy and uniformity of medical record coding and is recognized in the industry as the definitive source of coding instruction. In 1987, the AHA created the cooperating parties, who have final approval of the coding advice provided in the *Coding Clinic*. The cooperating parties consist of the AHA, the AHIMA (formerly AMRA), CMS (formerly HCFA), and NCHS. As we participate on the Editorial Advisory Board and are one of the cooperating parties, we support the use of the *Coding Clinic* for coding advice for LTCHs. Information about the *Coding Clinic* can be obtained from the American Hospital Association, Central Office on ICD-9-CM, One North Franklin, Chicago, IL 60606, or at its Web site at <http://www.ahacentraloffice.org>.

Based on our review of claims data submitted by LTCHs, we believe it is worthwhile to review some of the basic instructions for coding. Our compelling need is based on the review of the data submitted by LTCHs. We note that the logic of the care patterns or place of treatment should not be considered in reviewing the following scenarios. Rather, these are merely examples to illustrate correct coding practice.

- **Principal diagnosis**—As noted above, the specific definition for principal diagnosis established by the 1984 Revision of the Uniform Hospital Discharge Data Set is "the condition established after study to be chiefly responsible for occasioning the admission of the patient to the hospital for care." When a patient is discharged from an acute care facility and admitted to a LTCH, the appropriate principal diagnosis at the LTCH is not necessarily the same diagnosis for which the patient received care at the acute care hospital. For example, a patient who suffers a stroke (code 436, Acute, but ill-defined, cerebrovascular disease) is admitted to an acute care hospital for diagnosis and treatment. The patient is then discharged and admitted to a LTCH for further treatment of left-sided hemiparesis and dysphasia. The appropriate principal diagnosis at the LTCH would be a code from section 438 (Late effects of cerebrovascular disease),

such as 438.20 (Late effects of cerebrovascular disease, Hemiplegia affecting unspecified side) or 438.12 (Late effects of cerebrovascular disease, Dysphasia).

Coding guidelines state that the residual condition is sequenced first followed by the cause of the late effect. In the case of cerebrovascular disease, the combination code describes both the residual of the stroke (for example, speech or language deficits or paralysis) and the cause of the residual (the stroke). Code 436 is used only for the first (initial) episode of care for the stroke that was in the acute care setting.

- **Other diagnoses**—Secondary diagnoses that have no bearing on the LTCH stay are not coded. For example, a patient who has recovered from pneumonia during a previous episode of care will not have a diagnosis code for pneumonia included in his or her list of discharge diagnoses. The pneumonia was not treated during this LTCH admission and, therefore, has no bearing on this case.

- **Procedures**—Codes reflecting procedures provided during a previous acute care hospital stay are not included because the procedure was not performed during this LTCH admission. For example, a patient with several chronic illnesses is admitted to an acute care hospital with a diagnosis of appendicitis for which he or she receives an appendectomy. The patient subsequently is transferred to a LTCH for medical treatment following surgery, and as a result of the multiple secondary conditions, the patient needs a higher level of care than he or she could receive at home with an HHA. In this situation, appendicitis will not be coded because this condition was resolved with the removal of the appendix. The procedure code for appendectomy will not be used on the LTCH record, as the procedure was performed in the acute care setting, not during the LTCH admission.

We will train fiscal intermediaries and providers on the new system. We also will issue manuals containing procedures as well as coding instructions to LTCHs and fiscal intermediaries following the publication of this final rule.

*Comment:* One commenter approved of CMS' intent to use ICD-9-CM codes and the *Official Guidelines for Coding and Reporting*, but noted that LTCHs will need clarification regarding which portion of the guidelines applies to them. The commenter specifically mentioned that the scenario presented as an example of selection of a principal diagnosis for a stroke patient (67 FR 13436) specifies ICD-9-CM code 438

(Late effects of cerebrovascular disease) rather than the 436 codes reportable by an acute care hospital, and noted that the LTCH admission should be considered a transfer.

**Response:** We intend that the *Official Guidelines for Coding and Reporting*, available at <http://www.cdc.gov/nchs/data/icdguide.pdf>, be used for LTCHs in the same manner that they are used by short-term acute care hospitals. The Guidelines state that selection of a principal diagnosis is always governed by the circumstances of the admission (Section 2, Selection of Principal Diagnosis). Further, we also recommend that the American Hospital Association's publication *Coding Clinic for ICD-9-CM* be used to improve the accuracy and uniformity of medical record coding in LTCHs, just as it is used in acute care hospitals.

In the example cited above, we referenced *Coding Clinic Fourth Quarter 1998* (pp. 88 through 89) for advice on coding CVA. Specifically, we stated that codes from categories 430-437 should be used throughout the initial episode of care for an acute cerebral hemorrhage or infarction. When codes from the 430-437 series are used, additional codes are needed to identify any sequelae present (for example, hemiplegia [a code from category 342] and aphasia [784.3]). Once a patient has completed the initial treatment or is discharged from care, codes from category 438 should be assigned instead of codes from the 430-437 series to identify residual neurologic deficits.

When a patient is discharged from a short-term acute care hospital and is admitted to a LTCH, the initial treatment period is over and it is assumed that the patient has maximized the benefits of hospitalization possible for that level of care. When the patient is then admitted to a LTCH, the focus of treatment has shifted from identification and treatment of the acute episode to treatment for the sequelae or residual deficits resulting from the acute process. We further note that, for coding purposes, a transfer from an acute care setting to a LTCH is, as defined at § 412.4(c), a discharge instead of a transfer. (For payment purposes, if the acute care DRG falls into the postacute transfer policy, regulations at § 412.4 govern.)

Therefore, we reiterate that our advice in the coding example cited in the proposed rule was correct. The appropriate principal diagnosis at the LTCH would be a code from section 438 (Late effects of cerebrovascular disease).

**Comment:** One commenter stated that CMS should ensure that its contractors (fiscal intermediaries) have been

thoroughly trained and prepared for the LTCH prospective payment system before it is implemented. This commenter also suggested that fiscal intermediaries should be required to attest to their training and preparation. The commenter further suggested that CMS issue coding and training manuals to LTCHs as far in advance of implementation of the LTCH prospective payment system as possible.

Another commenter noted that current coding guidelines are vague insofar as they pertain to LTCHs, and called for the development of specific coding guidelines relating to the transfer of patients from acute care hospitals so that records will be appropriately coded for the LTCH prospective payment system.

**Response:** The fiscal intermediaries have been processing claims for acute care hospitals under the acute care hospital inpatient prospective payment system since its inception in 1983. We are confident that, given almost two decades of experience, they are prepared for, and capable of, processing LTCH claims for LTC-DRGs as well. However, the fiscal intermediaries will be receiving instruction and an overview of the new system before its implementation on October 1, 2002. The LTCH prospective payment system so closely mimics the acute care hospital inpatient prospective payment system that we have no overriding concerns about the fiscal intermediaries' capabilities. We do not believe an attestation by the fiscal intermediaries is necessary, and will monitor their performance as with the implementation of any new payment system.

The training that is to be provided by the fiscal intermediaries will be coordinated through CMS' Division of Provider Education and Training. That schedule has not yet been established, but information will be forthcoming to member hospitals from their fiscal intermediaries at a later date. This training will be given as soon as possible before the implementation of the LTCH prospective payment system.

With regard to coding issues, both the LTCHs and the short-term acute care hospitals should be applying the coding rules in the same manner. Since the inception of the acute care hospital inpatient prospective payment system, we have recommended that providers adopt and use the *ICD-9-CM Guidelines for Coding and Reporting* and the reporting definitions as set forth in the Uniform Hospital Discharge Data Set (UHDDS). We stated this recommendation in the proposed rule (67 FR 13435), and it was also discussed

in the Standards for Electronic Transactions (65 FR 50312). In the proposed rule, we also expressed our concern for correct coding practice (67 FR 13436), and suggest that providers use the American Hospital Association's publication *Coding Clinic for ICD-9-CM* to improve the accuracy and uniformity of medical record coding and reporting. We take this opportunity to reiterate that we are one of the four cooperating parties on AHA's Editorial Advisory Board for *Coding Clinic*, and we support the use of *Coding Clinic* for coding advice for LTCHs.

The LTCHs will be using the same guidelines as the short-term, acute care hospitals. We anticipate that when coding questions arise, the AHA will manage them in the same manner for both types of facilities. That is, coding questions submitted to the AHA will be brought before their Editorial Advisory Board for consideration and resolution. Answers to questions will either be published in *Coding Clinic* or will be answered directly. Information concerning *Coding Clinic* should be obtained from the American Hospital Association, Central Office on ICD-9-CM, One North Franklin, Chicago, IL 60606, or at its Web site at <http://www.ahacentraloffice.org>.

With regard to the comment that development of specific coding guidelines be developed that take into account the "transfer" of patients from acute care hospitals to LTCHs, we again state that when a patient is discharged from a short-term, acute care hospital and is admitted to a LTCH, the initial treatment period is over. Subsequent admission to a LTCH would require that the reason for the admission be examined and the principal diagnosis determined based on the merits of that admission.

**Comment:** Two commenters expressed concern that CMS had inaccurately determined the volume and subsequent relative weights for two LTC-DRGs. Those LTC-DRGs are DRG 475 (Respiratory System Diagnosis with Ventilator Support) and DRG 87 (Pulmonary Edema and Respiratory Failure). Patients grouped to DRG 475 were given a proposed relative weight of 2.3043, while patients grouped to DRG 87, who are patients not requiring ventilator support, were given a higher proposed weight of 2.4202. The commenter believed that when providers submitted multiple interim bills, the procedure code reflecting ventilator use was not reported on each interim bill, resulting in an inaccurate number of cases in each of the two DRGs and ultimately resulting in an

inaccurate computation of the relative weights for both DRGs.

*Response:* While the relative weights of 475 and 87 are not a coding issue, the hospital's method of reporting the codes has impacted DRG assignments and relative weights. The impact of how codes are reported is an issue that we did not anticipate when we computed the original relative weights. When providers submit multiple interim bills to us, only the diagnostic and procedural code data contained on the most recent bill are extracted for the MedPAR data file. When the DRG relative weights for the proposed rule were computed, they were based on the most recent MedPAR data. However, this data set contained some cases that apparently did not include all the codes that would have been present on the first billing. In one of the most striking examples, in those situations when the procedure code for ventilator use was not included on the bill, the DRG shifted from 475 to 87. As a result of this finding, we have reviewed the MedPAR file and recalibrated the relative weights based on the first data submitted to MedPAR. Relative weights in Table 3 in the Addendum to this final rule reflect our revised calculations.

Relative to correct coding practice for hospitals submitting interim bills, we have consulted with the members of the four Cooperating Parties (as discussed in section VIII.E.4. of this preamble) and have determined that correct coding practice includes the following concepts:

- The principal diagnosis will remain the same throughout the entire LTCH stay, and will be reported as the principal diagnosis on each claim submitted.

- Secondary or additional diagnoses will be coded as these conditions develop and will be reported on each claim submitted. For example, a LTCH patient develops a condition, such as decubiti, that was not present on admission. The code for this condition should be added to the next claim submitted, and will continue to be coded, even if the decubiti are successfully treated and ultimately resolved before the patient's discharge from the LTCH. If all appropriate secondary diagnoses, up to eight, are not present on the final claim, the DRG may not be correctly assigned. It is the responsibility of the LTCH to make sure their coding practices reflect proper coding on their claims.

- All procedures performed in the LTCH will be reported. This means that if a patient is on a ventilator at the beginning of his or her LTCH stay, or is placed on a ventilator during that stay,

but is subsequently weaned from the ventilator, the ventilator code will continue to appear on all claims. This is true for the duration of that LTCH stay. Likewise, if a patient has another type of procedure such as 54.51 (Laparoscopic lysis of peritoneal adhesions), code 54.51 should continue to be reported on each claim submitted for the duration of the patient's stay at the LTCH.

The above guidelines are in place for short-term, acute care hospitals and assure accurate and consistent coding practice. LTCHs are to follow the coding guidelines for the acute care hospitals to ensure that same accuracy and consistency. There will be only one DRG assigned per long-term care hospitalization; it will be assigned at the discharge. Therefore, it is mandatory that the coders continue to report the same principal diagnosis on all claims and include all diagnostic codes that coexist at the time of admission, that subsequently develop, or that affect the treatment received. Similarly, all procedures performed during that stay are to be reported on each claim.

#### **X. Payment System for LTCHs**

In accordance with section 123(a)(1) of Public Law 106–113, we are using a discharge as the payment unit for the LTCH prospective payment system for Medicare patients. We will update the per discharge payment amounts annually. The payment rates encompass both inpatient operating and capital-related costs of furnishing covered inpatient LTCH services, including routine and ancillary costs, but not the costs of bad debts, approved educational activities, blood clotting factors, anesthesia services furnished by hospital-employed nonphysician anesthetists or obtained under arrangement, or the costs of photocopying and mailing medical records requested by a QIO, which are costs paid outside the prospective payment system. Generally, consistent with current policy under § 412.42, beneficiaries may be charged only for deductibles, coinsurance, and noncovered services (for example, telephone and television). In addition, beneficiaries may be charged for services furnished during a LTCH stay that are not covered under Medicare. They may not be charged for the differences between the hospital's cost of providing covered care and the Medicare LTCH prospective payment amount for the full LTC–DRG. (For further details, see section VIII.C. of this preamble.)

We determine the LTCH prospective payment rates using relative weights to

account for the variation in resource use among LTC–DRGs. During FY 2003, the LTCH prospective payment system will be “budget neutral” in accordance with section 123(a)(1) of Public Law 106–113. That is, total payments for LTCHs during FY 2003 will be projected to equal payments that would have been paid for operating and capital-related costs of LTCHs had this new payment system not been enacted. Budget neutrality is discussed in detail in section X.J.2.h. of this preamble.

Based on our analysis of the data, we will make additional payments to LTCHs for discharges meeting specified criteria as high-cost “outliers.” Outliers are cases that have unusually high costs, exceeding the LTC–DRG payment plus the fixed loss amount, as discussed in section X.J.6. of this preamble. In addition to a high-cost outlier policy, we also are implementing payment policies regarding short-stay outliers and interrupted stays (sections X.C. and X.E. of this preamble).

In general, we are adopting the provisions for determining the prospective payments under the LTCH prospective payment system that we included in our March 22, 2002 proposed rule. If changes in this final rule have been made as a result of comments received, we discuss those changes in the context of the policy areas specified in this section of the preamble.

The LTCH prospective payment system uses Federal prospective payment rates across 499 distinct LTC–DRGs. We have established a standard Federal payment rate based on the best available LTCH cost data. LTC–DRG relative weights are applied to the standard Federal rate to account for the relative differences in resource use across the LTC–DRGs. As finalized in this final rule, the system also includes adjustments for short-stay outliers, differences in area wages (transitioned over 5 years), COLAs in Alaska and Hawaii, and high-cost outlier cases, as described in sections X.D., X.J.1., X.J.5., and X.J.6. of this preamble, respectively.

The standard Federal prospective payment rate, which is the basis for determining Federal payment rates for each LTC–DRG, is determined based on average costs from a base period, and also reflects the combined aggregate effects of the payment weights and other policies discussed in this section. In discussing the methodology, we begin by describing the various adjustments and factors that were considered in establishing the standard Federal prospective payment rate. We developed prospective payments for LTCHs using the following major steps:



- Develop the LTC-DRG relative weights.
- Determine appropriate payment system adjustments.
- Calculate the budget neutral standard Federal prospective payment rate.
- Calculate the Federal LTC-DRG prospective payments.

A detailed description of each step and a discussion of our policies for special cases, payment adjustments, phase-in implementation, and other policies follow.

#### *A. Development of the LTC-DRG Relative Weights*

##### 1. Overview of Development of the LTC-DRG Relative Weights

As previously stated, one of the primary goals for the implementation of the LTCH prospective payment system is to pay each LTCH an appropriate amount for the efficient delivery of care to Medicare patients. The system must be able to account adequately for each LTCH's case-mix in order to ensure both fair distribution of Medicare payments and access to adequate care for those Medicare patients whose care is more costly. To accomplish these goals, we adjust the standard Federal prospective payment system rate by the LTC-DRG relative weights in determining payment to LTCHs for each case.

In this payment system, relative weights for each LTC-DRG are a primary element used to account for the variations in cost per discharge and resource utilization among the payment groups (§ 412.515). To ensure that Medicare patients classified to each LTC-DRG have access to an appropriate level of services and to encourage efficiency, we calculate a relative weight for each LTC-DRG that represents the resources needed by an average inpatient LTCH case in that LTC-DRG. For example, cases in a LTC-DRG with a relative weight of 2 will, on average, cost twice as much as cases in a LTC-DRG with a weight of 1.

To calculate the relative weights in the proposed rule, we obtained charges from FY 2000 Medicare hospital bill data from the June 2001 update of the MedPAR file, and we used Version 18.0 of the CMS GROUPE (used under the acute care hospital inpatient prospective payment system for FY 2001). In this final rule, we recalculated the relative weights based on the most recent MedPAR data (that is, the March 2002 update of the FY 2001 Medicare hospital bill data, which include bills submitted through March 31, 2002) and Version 20.0 of the CMS GROUPE (used under the acute care hospital

inpatient prospective payment system for FY 2003). As we stated in the proposed rule, we have recalculated the LTC-DRG relative weights based on the most recent available data in this final rule. At the time the proposed rule was published, we anticipated that Version 19 of the CMS GROUPE (used under the hospital inpatient prospective payment system for FY 2002) would be the most recently available. However, due to the recent publication of the FY 2003 acute care hospital inpatient prospective payment system final rule, we were able to use the Version 20 of the CMS GROUPE.

As we discuss in further detail in section X.K.2.a. of this preamble, based on comments regarding the data used in the development of the proposed LTCH prospective payment system, we have reconsidered the appropriateness of including data from LTCHs that are all-inclusive rate providers (AIRPs) and LTCHs that are reimbursed in accordance with demonstration projects authorized under section 402(a) of Public Law 90-248 (42 U.S.C. 1395b-1) or section 222(a) of Public Law 92-603 (42 U.S.C. 1395b-1).

Since all-inclusive rate providers have no charge structure, it is not feasible to use charge data for these LTCHs to accurately project variations in Medicare patient resource use. We do not believe their charges are at all comparable to the data for other LTCHs and, therefore, believe that including data from AIRPs would have the potential to inappropriately skew relative weight determinations. As a result, in order to eliminate the influence that including AIRPs would have on the LTC-DRG relative weights, we have excluded the data of the 17 AIRPs in the calculation of the final LTC-DRG relative weights. Excluding the AIRPs' data is consistent with the methodology used in establishing the IRF prospective payment system (66 FR 41351, August 7, 2001). In addition, LTCHs that are reimbursed in accordance with demonstration projects are not subject to the LTCH prospective payment system. Therefore, we determined it would not be appropriate to include their data in the development of the LTC-DRG relative weights, and we have excluded the data from these three LTCHs in calculating the final LTC-DRG relative weights.

*Comment:* One commenter inquired whether data on "charges" and "length of stay" from the MedPAR cases used to determine the proposed LTC-DRG relative weights were covered charges and covered days, rather than total charges and total days.

*Response:* For the proposed rule, we used covered charges and covered days in the determination of the proposed LTC-DRG relative weights. However, in this final rule, we have reevaluated this decision and determined that consistent with our use of total days in the LTCH length of stay qualification formula (section VIII.B.2. of this preamble), it is appropriate to use total days and total charges in the calculation of the LTC-DRG relative weights. As we explain in section VIII.B.2. of this final rule, in our determination of whether a hospital qualifies for payment under the LTCH prospective payment system, total patient days, rather than covered days, will be used in computing a LTCH's required average length of stay of greater than 25 days for Medicare patients. We are adopting this policy because we believe that a criterion based on the total number of treatment days for Medicare patients is a better indication of the appropriateness of the patient's stay at a LTCH than the number of days covered by Medicare for payment purposes.

In the same way that counting total days better reflects whether or not the patient was appropriately hospitalized at a LTCH, charges for the entire length of stay (for example, charges for both the covered and noncovered days of the stay) will more accurately reflect the clinical resources expended in providing care for a specific diagnosis than will charges based only on Medicare-covered days. We believe that the number of covered days for individual Medicare patients treated in LTCHs may not be a reliable source of clinical information for determining and recalibrating the LTC-DRG relative weights. For example, a patient with a diagnosis of a pulmonary embolism would be grouped to LTC-DRG 78, which has an average length of stay of 20.5 days. If that patient only had 2 days of Medicare coverage remaining such that only those 2 covered days and charges were included in determining the LTC-DRG relative weights, those numbers would not represent the actual clinical services required to treat a patient in that LTC-DRG. Therefore, we have revised our methodology and have calculated the final LTC-DRG relative weights using total charges and total days. Using total charges and total lengths of stay enables us to more accurately measure the resources expended in treating a particular LTC-DRG as compared to other LTC-DRGs. This will allow us to establish a clinically driven determination of relative weights (unaffected by a patient's number of covered days of



care) and, therefore, will result in more appropriate payments.

By nature, LTCHs often specialize in certain areas, such as ventilator-dependent patients and rehabilitation and wound care. Some case types (DRGs) may be treated, to a large extent, in hospitals that have, from a perspective of charges, relatively high (or low) charges. Such nonarbitrary distribution of cases with relatively high (or low) charges in specific LTC-DRGs has the potential to inappropriately distort the measure of average charges. To account for the fact that cases may not be randomly distributed across LTCHs, as we stated in the proposed rule, we use a hospital-specific relative value method to calculate relative weights. We believe this method will remove this hospital-specific source of bias in measuring average charges. Specifically, we reduce the impact of the variation in charges across providers on any particular LTC-DRG relative weight by converting each LTCH's charge for a case to a relative value based on that LTCH's average charge. As MedPAC noted in its June 2000 Report to Congress, the hospital-specific relative value method eliminates distortion in the weights due to systematic differences among hospitals in the level of charge markups or costs (p. 58). The case-mix index is the average case weight (adjusted to eliminate the effect of short-stay outliers that are described in section X.C. of this preamble) for cases at each LTCH.

As we explained in the proposed rule (67 FR 13437), under the hospital-specific relative value method, we standardize charges for each LTCH by converting its charges for each case to hospital-specific relative charge values and then adjusting those values for the LTCH's case-mix. The adjustment for case-mix is needed to rescale the hospital-specific relative charge values (which, by definition, averages 1.0 for each LTCH). The average relative weight for a LTCH is its case-mix, so it is reasonable to scale each LTCH's average relative charge value by its case-mix. In this way, each LTCH's relative charge value is adjusted by its case-mix to an average that reflects the complexity of

the cases it treats relative to the complexity of the cases treated by all other LTCHs (the average case-mix of all LTCHs).

We standardize charges for each case by first dividing the adjusted charge for the case (adjusted for short-stay outliers as described in section X.C. of this preamble) by the average adjusted charge for all cases at the LTCH in which the case was treated. The average adjusted charge reflects the average intensity of the health care services delivered by a particular LTCH and the average cost level of that LTCH. The resulting ratio is multiplied by that LTCH's case-mix index to determine the standardized charge for the case.

As we explained in the proposed rule, multiplying by the LTCH's case-mix index accounts for the fact that the same relative charges are given greater weight in a hospital with higher average costs than they would at a LTCH with low average costs which is needed to adjust each LTCH's relative charge value to reflect its case-mix relative to the average case-mix for all LTCHs. Because we standardize charges in this manner, we count charges for a Medicare patient at a LTCH with high average charges as less resource intensive than they would be at a LTCH with low average charges. For example, a \$10,000 charge for a case in a LTCH with an average adjusted charge of \$17,500 reflects a higher level of relative resource use than a \$10,000 charge for a case in a LTCH with the same case-mix, but an average adjusted charge of \$35,000. We believe that the adjusted charge of an individual case more accurately reflects actual resource use for an individual LTCH because the variation in charges due to systematic differences in the markup of charges among LTCHs is taken into account.

In order to account for LTC-DRGs with low volume (that is, with fewer than 25 LTCH cases), as we discussed in the proposed rule (67 FR 13438), we group those low volume LTC-DRGs into one of five categories (quintiles) based on average charges, for the purposes of determining relative weights. For this final rule, using LTCH cases from the March 2002 update of the FY 2001 MedPAR file, we identified 161 LTC-

DRGs that contained between 1 and 24 cases. This list of LTC-DRGs was then divided into one of the five low volume quintiles, each containing a minimum of 32 LTC-DRGs ( $161/5 = 32$  with 1 LTC-DRG as a remainder). We made an assignment to a specific quintile by sorting the 161 low volume DRGs in ascending order by average charge. Since the number of LTC-DRGs with less than 25 LTCH cases is not evenly divisible by five, the average charge of the low volume LTC-DRG was used to determine which quintile received the additional LTC-DRG. After sorting the 161 volume LTC-DRGs in ascending order, the first fifth of low volume (32) LTC-DRGs with the lowest average charge are grouped into Quintile 1. This process was repeated through the remaining low volume LTC-DRGs so that 4 quintiles contained 32 LTC-DRGs and 1 quintile contained 33 LTC-DRGs. Since the average charge of the 97th LTC-DRG in the sorted list is closer to the previous LTC-DRG's average charge (assigned to Quintile 3) than to the average charge of the 98th LTC-DRG on the sorted list (to be assigned to Quintile 4), it is placed into Quintile 3. The highest average charge cases are grouped into Quintile 5. In order to determine the relative weights for the LTC-DRGs with low volume, we used the five low volume quintiles described above. The composition of each of the five low volume quintiles shown below in Chart 2 are used in determining the final LTC-DRG relative weights for FY 2003. We determine a relative weight and average length of stay for each of the five low volume quintiles using the formula applied to the regular LTC-DRGs (25 or more cases), as described in section X.A.2. of this final rule. We assign the same relative weight and average length of stay to each of the LTC-DRGs that make up that low volume quintile. We note that as this system is dynamic, it is entirely possible that the number and specific type of LTC-DRGs with a low volume of LTCH cases will vary in the future. We use the best available claims data in the MedPAR file to identify low volume LTC-DRGs and to calculate the relative weights based on our methodology.

CHART 2.—COMPOSITION OF LOW VOLUME QUINTILES

LTC-DRG	Description
<b>Quintile 1</b>	
021 .....	VIRAL MENINGITIS
045 .....	NEUROLOGICAL EYE DISORDERS
047 .....	OTHER DISORDERS OF THE EYE AGE >17 W/O CC
066 .....	EPISTAXIS
067 .....	EPIGLOTTITIS
072 .....	NASAL TRAUMA & DEFORMITY
084 .....	MAJOR CHEST TRAUMA W/O CC
095 .....	PNEUMOTHORAX W/O CC
118 .....	CARDIAC PACEMAKER DEVICE REPLACEMENT
150 .....	PERITONEAL ADHESIOLYSIS W CC
157 .....	ANAL & STOMAL PROCEDURES W CC
208 .....	DISORDERS OF THE BILIARY TRACT W/O CC
224 .....	SHOULDER, ELBOW OR FOREARM PROC, EXC MAJOR JOINT PROC, W/O CC
230 .....	LOCAL EXCISION & REMOVAL OF INT FIX DEVICES OF HIP & FEMUR
234 .....	OTHER MUSCULOSKELET SYS & CONN TISS O.R. PROC W/O CC
262 .....	BREAST BIOPSY & LOCAL EXCISION FOR NON-MALIGNANCY
284 .....	MINOR SKIN DISORDERS W/O CC
290 .....	THYROID PROCEDURES
301 .....	ENDOCRINE DISORDERS W/O CC
307 .....	PROSTATECTOMY W/O CC
311 .....	TRANSURETHRAL PROCEDURES W/O CC
329 .....	URETHRAL STRICTURE AGE >17 W/O CC
339 .....	TESTES PROCEDURES, NON-MALIGNANCY AGE >17
348 .....	BENIGN PROSTATIC HYPERTROPHY W CC
359 .....	UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W/O CC
360 .....	VAGINA, CERVIX & VULVA PROCEDURES
399 .....	RETICULOENDOTHELIAL & IMMUNITY DISORDERS W/O CC
410 .....	CHEMOTHERAPY W/O ACUTE LEUKEMIA AS SECONDARY DIAGNOSIS
420 .....	FEVER OF UNKNOWN ORIGIN AGE >17 W/O CC
455 .....	OTHER INJURY, POISONING & TOXIC EFFECT DIAG W/O CC
494 .....	LAPAROSCOPIC CHOLECYSTECTOMY W/O C.D.E. W/O CC
522 .....	ALCOHOL/DRUG ABUSE OR DEPENDENCE W REHABILITATION THERAPY W/O CC
<b>Quintile 2</b>	
017 .....	NONSPECIFIC CEREBROVASCULAR DISORDERS W/O CC
022 .....	HYPERTENSIVE ENCEPHALOPATHY
031 .....	CONCUSSION AGE >17 W CC
044 .....	ACUTE MAJOR EYE INFECTIONS
046 .....	OTHER DISORDERS OF THE EYE AGE >17 W CC
055 .....	MISCELLANEOUS EAR, NOSE, MOUTH & THROAT PROCEDURES
068** .....	OTITIS MEDIA & URI AGE >17 W CC
108 .....	OTHER CARDIOTHORACIC PROCEDURES
149 .....	MAJOR SMALL & LARGE BOWEL PROCEDURES W/O CC
178 .....	UNCOMPLICATED PEPTIC ULCER W/O CC
206 .....	DISORDERS OF LIVER EXCEPT MALIG, CIRRH, ALC HEPA W/O CC
229 .....	HAND OR WRIST PROC, EXCEPT MAJOR JOINT PROC, W/O CC
237 .....	SPRAINS, STRAINS, & DISLOCATIONS OF HIP, PELVIS & THIGH
257 .....	TOTAL MASTECTOMY FOR MALIGNANCY W CC
273 .....	MAJOR SKIN DISORDERS W/O CC
276 .....	NON-MALIGNANT BREAST DISORDERS
305 .....	KIDNEY, URETER & MAJOR BLADDER PROC FOR NON-NEOPL W/O CC
319 .....	KIDNEY & URINARY TRACT NEOPLASMS W/O CC
323 .....	URINARY STONES W CC, &/OR ESW LITHOTRIPSY
324 .....	URINARY STONES W/O CC
326 .....	KIDNEY & URINARY TRACT SIGNS & SYMPTOMS AGE >17 W/O CC
341 .....	PENIS PROCEDURES
347 .....	MALIGNANCY, MALE REPRODUCTIVE SYSTEM, W/O CC
369 .....	MENSTRUAL & OTHER FEMALE REPRODUCTIVE SYSTEM DISORDERS
427 .....	NEUROSES EXCEPT DEPRESSIVE
432 .....	OTHER MENTAL DISORDER DIAGNOSES
443 .....	OTHER O.R. PROCEDURES FOR INJURIES W/O CC
447 .....	ALLERGIC REACTIONS AGE >17
450 .....	POISONING & TOXIC EFFECTS OF DRUGS AGE >17 W/O CC
467 .....	OTHER FACTORS INFLUENCING HEALTH STATUS
479 .....	OTHER VASCULAR PROCEDURES W/O CC
520 .....	CERVICAL SPINAL FUSION W/O CC
<b>Quintile 3</b>	
043 .....	HYPHEMA

CHART 2.—COMPOSITION OF LOW VOLUME QUINTILES—Continued

LTC-DRG	Description
068 *	OTITIS MEDIA & URI AGE >17 W CC
069	OTITIS MEDIA & URI AGE >17 W/O CC
116	OTH PERM CARD PACEMAK IMPL OR PTCA W CORONARY ARTERY STENT IMPLNT
124	CIRCULATORY DISORDERS EXCEPT AMI, W CARD CATH & COMPLEX DIAG
168	MOUTH PROCEDURES W CC
171	OTHER DIGESTIVE SYSTEM O.R. PROCEDURES W/O CC
177	UNCOMPLICATED PEPTIC ULCER W CC
185	DENTAL & ORAL DIS EXCEPT EXTRACTIONS & RESTORATIONS, AGE >17
199	HEPATOBIILIARY DIAGNOSTIC PROCEDURE FOR MALIGNANCY
218	LOWER EXTREM & HUMER PROC EXCEPT HIP, FOOT, FEMUR AGE >17 W CC
227	SOFT TISSUE PROCEDURES W/O CC
266	SKIN GRAFT &/OR DEBRID EXCEPT FOR SKIN ULCER OR CELLULITIS W/O CC
275 ***	MALIGNANT BREAST DISORDERS W/O CC
295	DIABETES AGE 0-35
299	INBORN ERRORS OF METABOLISM
306	PROSTATECTOMY W CC
308	MINOR BLADDER PROCEDURES W CC
336	TRANSURETHRAL PROSTATECTOMY W CC
345	OTHER MALE REPRODUCTIVE SYSTEM O.R. PROC EXCEPT FOR MALIGNANCY
352	OTHER MALE REPRODUCTIVE SYSTEM DIAGNOSES
367	MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W/O CC
400	LYMPHOMA & LEUKEMIA W MAJOR O.R. PROCEDURE
449	POISONING & TOXIC EFFECTS OF DRUGS AGE >17 W CC
454	OTHER INJURY, POISONING & TOXIC EFFECT DIAG W CC
465	AFTERCARE W HISTORY OF MALIGNANCY AS SECONDARY DIAGNOSIS
486	OTHER O.R. PROCEDURES FOR MULTIPLE SIGNIFICANT TRAUMA
492	CHEMOTHERAPY W ACUTE LEUKEMIA AS SECONDARY DIAGNOSIS
493	LAPAROSCOPIC CHOLECYSTECTOMY W/O C.D.E. W CC
498	SPINAL FUSION W/O CC
508	FULL THICKNESS BURN W/O SKIN GRFT OR INHAL INJ W CC OR SIG TRAUMA
509	FULL THICKNESS BURN W/O SKIN GRFT OR INH INJ W/O CC OR SIG TRAUMA
511	NON-EXTENSIVE BURNS W/O CC OR SIGNIFICANT TRAUMA
519	CERVICAL SPINAL FUSION W CC

## Quintile 4

004	SPINAL PROCEDURES
005	EXTRACRANIAL VASCULAR PROCEDURES
008	PERIPH & CRANIAL NERVE & OTHER NERV SYST PROC W/O CC
146	RECTAL RESECTION W CC
152	MINOR SMALL & LARGE BOWEL PROCEDURES W CC
154	STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 W CC
159	HERNIA PROCEDURES EXCEPT INGUINAL & FEMORAL AGE >17 W CC
193	BILIARY TRACT PROC EXCEPT ONLY CHOLECYST W OR W/O C.D.E. W CC
200	HEPATOBIILIARY DIAGNOSTIC PROCEDURE FOR NON-MALIGNANCY
210	HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE >17 W CC
216	BIOPSIES OF MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE
223	MAJOR SHOULDER/ELBOW PROC, OR OTHER UPPER EXTREMITY PROC W CC
225	FOOT PROCEDURES
226	SOFT TISSUE PROCEDURES W CC
233	OTHER MUSCULOSKELET SYS & CONN TISS O.R. PROC W CC
268	SKIN, SUBCUTANEOUS TISSUE & BREAST PLASTIC PROCEDURES
292	OTHER ENDOCRINE, NUTRIT & METAB O.R. PROC W CC
304	KIDNEY, URETER & MAJOR BLADDER PROC FOR NON-NEOPL W CC
310	TRANSURETHRAL PROCEDURES W CC
317	ADMIT FOR RENAL DIALYSIS
342	CIRCUMCISION AGE >17
344	OTHER MALE REPRODUCTIVE SYSTEM O.R. PROCEDURES FOR MALIGNANCY
368	INFECTIONS, FEMALE REPRODUCTIVE SYSTEM
389	FULL TERM NEONATE W MAJOR PROBLEMS
401	LYMPHOMA & NON-ACUTE LEUKEMIA W OTHER O.R. PROC W CC
408	MYELOPROLIF DISORD OR POORLY DIFF NEOPL W OTHER O.R. PROC
414 ***	OTHER MYELOPROLIF DIS OR POORLY DIFF NEOPL DIAG W/O CC
421	VIRAL ILLNESS AGE >17
428	DISORDERS OF PERSONALITY & IMPULSE CONTROL
505	EXTENSIVE 3RD DEGREE BURNS W/O SKIN GRAFT
515	CARDIAC DEFIBRILATOR IMPLANT W/O CARDIAC CATH
518	PERCUTANEOUS CARDIOVASCULAR PROC W/O CORONARY ARTERY STENT OR AMI

## Quintile 5

001	CRANIOTOMY AGE >17 W CC
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CHART 2.—COMPOSITION OF LOW VOLUME QUINTILES—Continued

LTC-DRG	Description
002 .....	CRANIOTOMY AGE >17 W/O CC
061 .....	MYRINGOTOMY W TUBE INSERTION AGE >17
063 .....	OTHER EAR, NOSE, MOUTH & THROAT O.R. PROCEDURES
075 .....	MAJOR CHEST PROCEDURES
077 .....	OTHER RESP SYSTEM O.R. PROCEDURES W/O CC
110 .....	MAJOR CARDIOVASCULAR PROCEDURES W CC
111 .....	MAJOR CARDIOVASCULAR PROCEDURES W/O CC
115 .....	PRM CARD PACEM IMPL W AMI,HRT FAIL OR SHK,OR AICD LEAD OR GNRTR P
125 .....	CIRCULATORY DISORDERS EXCEPT AMI, W CARD CATH W/O COMPLEX DIAG
191 .....	PANCREAS, LIVER & SHUNT PROCEDURES W CC
197 .....	CHOLECYSTECTOMY EXCEPT BY LAPAROSCOPE W/O C.D.E. W CC
198 .....	CHOLECYSTECTOMY EXCEPT BY LAPAROSCOPE W/O C.D.E. W/O CC
201 .....	OTHER HEPATOBILIARY OR PANCREAS O.R. PROCEDURES
209 .....	MAJOR JOINT & LIMB REATTACHMENT PROCEDURES OF LOWER EXTREMITY
231 .....	LOCAL EXCISION & REMOVAL OF INT FIX DEVICES EXCEPT HIP & FEMUR
288 .....	O.R. PROCEDURES FOR OBESITY
303 .....	KIDNEY, URETER & MAJOR BLADDER PROCEDURES FOR NEOPLASM
312 .....	URETHRAL PROCEDURES, AGE >17 W CC
358 .....	UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W CC
365 .....	OTHER FEMALE REPRODUCTIVE SYSTEM O.R. PROCEDURES
394 .....	OTHER O.R. PROCEDURES OF THE BLOOD AND BLOOD FORMING ORGANS
406 .....	MYELOPROLIF DISORD OR POORLY DIFF NEOPL W MAJ O.R.PROC W CC
424 .....	O.R. PROCEDURE W PRINCIPAL DIAGNOSES OF MENTAL ILLNESS
476 .....	PROSTATIC O.R. PROCEDURE UNRELATED TO PRINCIPAL DIAGNOSIS
488 .....	HIV W EXTENSIVE O.R. PROCEDURE
497 .....	SPINAL FUSION W CC
499 .....	BACK & NECK PROCEDURES EXCEPT SPINAL FUSION W CC
501 .....	KNEE PROCEDURES W PDX OF INFECTION W CC
503 .....	KNEE PROCEDURES W/O PDX OF INFECTION
506 .....	FULL THICKNESS BURN W SKIN GRAFT OR INHAL INJ W CC OR SIG TRAUMA
517 .....	PERCUTANEOUS CARDIVASCULAR PROC W NON-DRUG ELUTING STENT W/O AMI

\* One of the original 161 low volume LTC-DRGs initially assigned to a different low volume quintile; reassigned to this low volume quintile in addressing nonmonotonicity (see step 4 below).

\*\* One of the original 161 low volume LTC-DRGs initially assigned to this low volume quintile; reassigned to a different low volume quintile in addressing nonmonotonicity (see step 4 below).

\*\*\* One of the original 161 low volume LTC-DRGs initially assigned to this low volume quintile; removed from the low volume quintiles in addressing nonmonotonicity (see step 4 below).

After grouping the cases in the appropriate LTC-DRG, we calculate the relative weights in this final rule by first removing statistical outliers and cases with a length of stay of 7 days or less. Next we adjust the number of cases in each LTC-DRG for the effect of short-stay outlier cases under § 412.529. The short-stay adjusted discharges and corresponding charges are used to calculate "relative adjusted weights" in each LTC-DRG using the hospital-specific relative value method described above. We describe each of these steps in greater detail in section X.A.2. of this preamble.

*Comment:* Two commenters notified us of a data problem regarding the proposed LTC-DRG relative weight values that were determined using MedPAR (claims) data for FYs 2000 and 2001. The commenters were concerned that two high-volume and high-resource use LTC-DRGs were incorrectly weighted and that this error would not only result in inaccurate payments for certain LTCHs, but also would have negative implications for the accuracy of the overall payment system.

*Response:* Following notification of this problem, we researched the commenter's claims and determined that, given the long stays at LTCHs, some providers had submitted multiple bills for payment under the TEFRA reimbursement system for the same stay. In establishing the LTC-DRG relative weights in the proposed rule, these claims from the MedPAR file were run through the LTCH GROUPE and used in determining the proposed relative weights for each LTC-DRG. Based upon our research, we became aware of the following situation: in certain LTCHs, hospital personnel apparently reported a different principal diagnosis on each bill since, under the TEFRA system, payment was not dependent upon principal diagnosis as it is under a DRG-based system. Moreover, since we discovered that only data from the final bills were being extracted for the MedPAR file, it is possible that the original MedPAR file would not be receiving the correct principal diagnosis. In this final rule, we have addressed the problem by identifying all LTCH cases in the MedPAR file for which multiple bills were submitted. For each of these cases, beginning with the first bill and moving forward consecutively through subsequent bills for that stay, we recorded the first unique diagnosis codes up to 10 and the first unique procedure codes up to 10. We then used these codes to group each case to a LTC-DRG. Using this methodology, we note in this final rule that there are significant changes in the

relative weights for several LTC-DRGs and consequential changes to the relative weights for the other LTC-DRGs. We recognize the impact that this information had on the accuracy and integrity of the LTCH prospective payment system and appreciate the commenters who brought this issue to our attention and allowed us to address it.

## 2. Steps for Calculating the Relative Weights

In the March 22, 2002 proposed rule (67 FR 13441-13445), we described the steps for calculating the proposed relative weights for the proposed LTC-DRGs under the proposed LTCH prospective payment system. Proposed Step 1 was "Adjust charges for the effects of short-stay outliers" and proposed Step 2 was "Remove statistical outliers." As we have stated in Question 5.8 of the "Frequently Asked Questions" posted on the CMS website, the stated order of proposed Step 1 and proposed Step 2 was inadvertently reversed in the proposed rule. In fact, statistical outliers were removed *before* short-stay outliers were adjusted. These steps are shown in the correct order in the description given below for calculating the final relative weights. In addition, in this final rule, we are adding a new step as a result of our elimination of the proposed very short-stay discharge policy discussed in sections X.C. and X.D. of this preamble.

### Step 1—Remove statistical outliers.

The first step in the calculation of the relative weights is to remove statistical outlier cases. As we stated in the proposed rule, we define statistical outliers as cases that are outside of 3.0 standard deviations from the mean of the log distribution of both charges per case and the charges per day for each LTC-DRG. These statistical outliers are removed prior to calculating the relative weights. We believe that they may represent aberrations in the data that distort the measure of average resource use. Including those cases in the calculation of the relative weights could result in an inaccurate weight that does not truly reflect relative resource use among the LTC-DRGs. Thus, removing statistical outliers results in more appropriate LTC-DRG relative weights and payments.

### Step 2—Remove cases with a length of stay of 7 days or less.

In the proposed calculation of the LTC-DRG relative weights, we did not include cases with a length of stay of 7 days or less since we had proposed to assign those cases to one of two very

short-stay discharge LTC-DRGs (section X.C. of this preamble). Thus, in the proposed rule, the costs of cases with stays of 7 days or less were factored into those very short-stay discharge LTC-DRG relative weights. As we discuss in further detail in sections X.C. and X.D. of this preamble, even though in this final rule we are now including cases with a length of stay of 7 days or less under the short-stay outlier policy (§ 412.529), we continue to believe that, generally, cases with a length of stay 7 days or less do not belong in a LTCH. Because these cases do not use the same amount or type of resources as typical inlier cases, our simulations have indicated that including these cases in the calculations of the LTC-DRG relative weights would significantly bias payments against inlier cases. (For purposes of payment under the LTCH prospective payment system, an "inlier case" means a stay in which Medicare-covered days exceed five-sixths of the geometric average length of stay for a particular LTC-DRG, and the estimated costs for a particular LTC-DRG, and the estimated costs for a particular discharge do not exceed the high-cost outlier threshold (that is, the adjusted LTCH prospective payment system payment for a particular LTC-DRG plus a fixed-loss amount).) The LTC-DRG relative weights should reflect the average of resources used on representative cases of a specific type. Therefore, we continue to believe that cases with stays of 7 days or less should not be included in the calculation of the relative weights.

Stays of 7 days or less generally do not fully receive or benefit from treatment that is typical in a LTCH stay and full resources are often not used in the earlier stages of admission to a LTCH. If we did include stays of 7 days or less in the computation of the LTC-DRG relative weights, the value of many weights would decrease and, therefore, inlier payments would decrease to a level that may no longer be appropriate. We do not believe that it is appropriate to compromise the integrity of the payment determination for those LTCH inlier cases that actually benefit from and receive a full course of treatment at a LTCH, in order to include data from these very short-stays. Thus, in determining the final LTC-DRG relative weights, we have removed cases with a length of stay of 7 days or less.

### Step 3—Adjust charges for the effects of short-stay outliers.

The third step in the calculation of the relative weights is to adjust each LTCH's charges per discharge for short-stay outlier cases (that is, a patient with

a length of stay that is less than or equal to five-sixths the average length of stay of the LTC-DRG as described in section X.C. of this final rule).

We make this adjustment by counting a short-stay outlier as a fraction of a discharge based on the ratio of the length of stay of the case to the average length of stay for the LTC-DRG for nonshort-stay outlier cases. This has the effect of proportionately reducing the impact of the lower charges for the short-stay outlier cases in calculating the average charge for the LTC-DRG. This process produces the same result as if the actual charges per discharge of a short-stay outlier case were adjusted to what they would have been had the patient's length of stay been equal to the average length of stay of the LTC-DRG.

As we stated in the proposed rule, counting short-stay outlier cases as full discharges with no adjustment in determining the relative weights would lower the relative weight for affected LTC-DRGs because the relatively lower charges of the short-stay outlier cases bring down the average charge for all cases within a LTC-DRG. This would result in an "underpayment" to nonshort-stay outlier cases and an "overpayment" to short-stay outlier cases. Therefore, in this final rule, we are adjusting for short-stay outlier cases in this manner since it will result in more appropriate payments for all LTCH cases. The result of step 3 is that each LTCH's average cost per discharge is adjusted for short-stay outliers (as described above) before calculating the LTC-DRG relative weights on an iterative basis (step 4) using the hospital-specific relative value method.

*Step 4—Calculate the LTC-DRG relative weights on an iterative basis.*

As explained in the proposed rule, the process of calculating the LTC-DRG relative weights is iterative. First, for each case, we calculate a hospital-specific relative charge value by dividing the short-stay outlier adjusted charge per discharge (see step 3) of the case (after removing the statistical outliers (see step 1)) and cases with a length of stay of 7 days or less (see step 2) by the average charge per discharge for the LTCH in which the case occurred. The resulting ratio is then multiplied by the LTCH's case-mix index to produce an adjusted hospital-specific relative charge value for the case. An initial case-mix index value of 1.0 is used for each LTCH.

For each LTC-DRG, the LTC-DRG relative weight is calculated by dividing the average of the adjusted hospital-specific relative charge values (from above) for the LTC-DRG by the overall

average hospital-specific relative charge value across all cases for all LTCHs. Using these recalculated LTC-DRG relative weights, each LTCH's average relative weight for all of its cases (case-mix) is calculated by dividing the sum of all the LTCH's LTC-DRG relative weights by its total number of cases. The LTCHs' hospital-specific relative charge values above are multiplied by these hospital specific case-mix indexes. These hospital-specific case-mix adjusted relative charge values are then used to calculate a new set of LTC-DRG relative weights across all LTCHs. In this final rule, this iterative process is continued until there is convergence between the weights produced at adjacent steps, for example, when the maximum difference is less than 0.0001.

*Step 5—Adjust the LTC-DRG relative weights to account for nonmonotonically increasing relative weights.*

As explained in section IX.D. of this preamble, the LTC-DRGs contain "pairs" that are differentiated based on the presence or absence of CCs. LTC-DRGs with CCs are defined by certain secondary diagnoses not related to or inherently a part of the disease process identified by the principal diagnosis, but the presence of additional diagnoses does not automatically generate a CC. The value of monotonically increasing relative weights rises as the resource use increases (for example, from uncomplicated to more complicated). The presence of CCs in a LTC-DRG means that cases classified into a "without CC" LTC-DRG are expected to have lower resource use (and lower costs). In other words, resource use (and costs) are expected to decrease across "with CC"/"without CC" pairs of LTC-DRGs. For a case to be assigned to a LTC-DRG with CCs, more coded information is called for (that is, at least one relevant secondary diagnosis), than for a case to be assigned to a LTC-DRG without CCs (which is based on only one principal diagnosis and no relevant secondary diagnoses). Currently, the database includes both accurately coded cases without complications and cases that have complications (and cost more) but were not coded completely. Both types of cases are grouped to a LTC-DRG "without CCs" since only one principal diagnosis was coded. Since LTCHs are currently paid under cost-based reimbursement, which is not based on patient diagnoses, LTCHs' coding for these cases may not have been as detailed as possible.

Thus, as we explained in the proposed rule, in developing the relative weights for the LTCH

prospective payment system, we found on occasion that the data suggested that cases classified to the LTC-DRG "with CCs" of a "with CC"/"without CC" pair had a lower average charge than the corresponding LTC-DRG "without CCs." We believe this anomaly may be due to coding that may not have fully reflected all comorbidities that were present. Specifically, LTCHs may have failed to code relevant secondary diagnoses, which resulted in cases that actually had CCs being classified into a "without CC" LTC-DRG. It is not appropriate to pay a lower amount for the "with CC" LTC-DRG. Therefore, in this final rule, we continue to group both the cases "with CCs" and "without CCs" together for the purpose of calculating the relative weights for the LTC-DRGs until we have adequate data to calculate appropriate separate weights for these anomalous LTC-DRG pairs. We expect that, as was the case when we first implemented the acute care hospital inpatient prospective payment system, this problem will be self-correcting, as LTCHs submit more completely coded data in the future.

For this final rule, using the LTCH cases in the March 2002 update of the FY 2001 MedPAR file, we identified three types of "with CC" and "without CC" pairs of LTC-DRGs that are nonmonotonic, that is, where the "without CC" LTC-DRG would have a higher average charge than the "with CC" LTC-DRG.

The first category of nonmonotonically increasing relative weights for LTC-DRG pairs "with and without CCs" contains 1 pair of LTC-DRGs in which both the LTC-DRG "with CCs" and the LTC-DRG "without CCs" had 25 or more LTCH cases and, therefore, did not fall into one of the 5 quintiles. For that pair of LTC-DRGs, we combine the cases and compute a new relative weight based on the case-weighted average of the combined cases of the LTC-DRGs. The case-weighted average charge is determined by dividing the total charges for all cases by the total number of cases for the combined LTC-DRG. This new relative weight is assigned to both of the LTC-DRGs in the pair. For the FY 2003 implementation of the LTCH prospective payment system in this final rule, LTC-DRGs 10 and 11 are in this category.

The second category of nonmonotonically increasing relative weights for LTC-DRG pairs with and without CCs consists of 1 pair of LTC-DRGs that has fewer than 25 cases and are both grouped to different quintiles in which the "without CC" LTC-DRG is in a higher-weighted quintile than the

“with CC” LTC-DRG. For that pair, we combine the cases and determine the case-weighted average charge for all cases. The case-weighted average charge is determined by dividing the total charges for all cases by the total number of cases for the combined LTC-DRG. Based on the case-weighted average charge, we determined which quintile the “combined LTC-DRG” is grouped. Both LTC-DRGs in the pair are then grouped into the same quintile, and thus have the same relative weight. For the FY 2003 implementation of the LTCH prospective payment system in this final rule, LTC-DRGs 68 and 69 (low volume quintile 3) are in this category.

The third category of nonmonotonically increasing relative weights for LTC-DRG pairs with and without CCs consists of 2 pairs of LTC-DRGs where one of the LTC-DRGs has fewer than 25 LTCH cases and is grouped to a quintile and the other LTC-DRG has 25 or more LTCH cases and has its own LTC-DRG weight, and the LTC-DRG “without CCs” has the higher weight. We remove the low volume LTC-DRG from the quintile and combine it with the other LTC-DRG for the computation of a new relative weight for each of these LTC-DRGs. This new relative weight is assigned to both LTC-DRGs, so they each have the same relative weight. For the FY 2003 implementation of the LTCH prospective payment system, the following LTC-DRGs are in this category: LTC-DRGs 274 and 275, and LTC-DRGs 413 and 414.

In addition, for the FY 2003 implementation of the LTCH prospective payment system, we determine the relative weight for each LTC-DRG using charges reported in the March 2002 update of the FY 2001 MedPAR file. Of the 510 LTC-DRGs in the CMS LTCH prospective payment system, we identified 159 LTC-DRGs for which there were no LTCH cases in the database. That is, based on the FY 2001 MedPAR file used in this final rule, no patients who would have been classified to those DRGs were treated in LTCHs during FY 2001 and, therefore, no charge data were reported for those DRGs. Thus, in the process of determining the relative weights of LTC-DRGs, we were unable to determine weights for these 159 LTC-DRGs using the method described above. However, since patients with a number of the diagnoses under these LTC-DRGs may be treated at LTCHs beginning in FY 2003, when the LTCH prospective payment system is implemented, we are assigning relative weights to each of the 159 “no volume” LTC-DRGs based on clinical similarity and relative costliness to one of the remaining 351 ( $510 - 159 = 351$ ) LTC-DRGs for which we are able to determine relative weights, based on FY 2001 charge data.

As there are currently no LTCH cases in these “no volume” LTC-DRGs, we establish relative weights for the 165 LTC-DRGs with no LTCH cases in the FY 2001 MedPAR file used in this final rule by grouping them to the

appropriate low volume quintile. This methodology is consistent with our methodology used in determining relative weights to account for low volume LTC-DRGs described above.

As we described in the proposed rule, our methodology for determining relative weights for the “no volume” LTC-DRGs is as follows: First, we cross-walk the no volume LTC-DRGs by matching them to other similar LTC-DRGs for which there were LTCH cases in the FY 2001 MedPAR file based on clinical similarity and intensity of use of resources as determined by care provided during the period of time surrounding surgery, surgical approach (if applicable), length of time of surgical procedure, post-operative care, and length of stay. We assign the weight for the applicable quintile to the no volume LTC-DRG if the LTC-DRG to which it would be cross-walked was grouped to one of the low volume quintiles. If the LTC-DRG to which the no volume LTC-DRG would be cross-walked was not one of the LTC-DRGs grouped to one of the low volume quintiles, we compare the weight of the LTC-DRG to which the no volume LTC-DRG would be cross-walked to the weights of each of the five quintiles and assign the no volume LTC-DRG the relative weight of the quintile with the closest weight. For this final rule, a list of the no volume LTC-DRGs and the LTC-DRG to which it would be crosswalked in order to determine the appropriate low volume quintile for the assignment of a relative weight is shown below in Chart 3.

CHART 3.—NO VOLUME LTC-DRG CROSSWALK AND QUINTILE ASSIGNMENT<sup>1</sup>

LTC-DRG	Description	Cross-walked LTC-DRG	Low volume quintile assigned
3	CRANIOTOMY AGE 0-17	1	Quintile 5
6	CARPAL TUNNEL RELEASE	224	Quintile 1
26	SEIZURE & HEADACHE AGE 0-17	25	Quintile 1
30	TRAUMATIC STUPOR & COMA, COMA <1 HR AGE 0-17	29	Quintile 3
32	CONCUSSION AGE >17 W/O CC	25	Quintile 1
33	CONCUSSION AGE 0-17	25	Quintile 1
36	RETINAL PROCEDURES	47	Quintile 1
37	ORBITAL PROCEDURES	47	Quintile 1
38	PRIMARY IRIS PROCEDURES	47	Quintile 1
39	LENS PROCEDURES WITH OR WITHOUT VITRECTOMY	47	Quintile 1
40	EXTRAOCULAR PROCEDURES EXCEPT ORBIT AGE >17	47	Quintile 1
41	EXTRAOCULAR PROCEDURES EXCEPT ORBIT AGE 0-17	47	Quintile 1
42	INTRAOCULAR PROCEDURES EXCEPT RETINA, IRIS & LENS	47	Quintile 1
48	OTHER DISORDERS OF THE EYE AGE 0-17	47	Quintile 1
49	MAJOR HEAD & NECK PROCEDURES	63	Quintile 5
50	SIALOADENECTOMY	55	Quintile 2
51	SALIVARY GLAND PROCEDURES EXCEPT SIALOADENECTOMY	55	Quintile 2
52	CLEFT LIP & PALATE REPAIR	55	Quintile 2
53	SINUS & MASTOID PROCEDURES AGE >17	55	Quintile 2
54	SINUS & MASTOID PROCEDURES AGE 0-17	55	Quintile 2
56	RHINOPLASTY	55	Quintile 2
57	T&A PROC, EXCEPT TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE >17	55	Quintile 2
58	T&A PROC, EXCEPT TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE 0-17	55	Quintile 2
59	TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE >17	55	Quintile 2
60	TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE 0-17	55	Quintile 2
62	MYRINGOTOMY W TUBE INSERTION AGE 0-17	55	Quintile 2
70	OTITIS MEDIA & URI AGE 0-17	67	Quintile 1
71	LARYNGOTRACHEITIS	67	Quintile 1
74	OTHER EAR, NOSE, MOUTH & THROAT DIAGNOSES AGE 0-17	67	Quintile 1
81	RESPIRATORY INFECTIONS & INFLAMMATIONS AGE 0-17	67	Quintile 1
91	SIMPLE PNEUMONIA & PLEURISY AGE 0-17	90	Quintile 3
98	BRONCHITIS & ASTHMA AGE 0-17	97	Quintile 1
104	CARDIAC VALVE & OTHER MAJOR CARDIOTHORACIC PROC W CARDIAC CATH	110	Quintile 5
105	CARDIAC VALVE & OTHER MAJOR CARDIOTHORACIC PROC W/O CARDIAC CATH	110	Quintile 5
106	CORONARY BYPASS W PTCA	110	Quintile 5
107	CORONARY BYPASS W CARDIAC CATH	110	Quintile 5
109	CORONARY BYPASS W/O PTCA OR CARDIAC CATH	110	Quintile 5
117	CARDIAC PACEMAKER REVISION EXCEPT DEVICE REPLACEMENT	118	Quintile 1
119	VEIN LIGATION & STRIPPING	131	Quintile 2
137	CARDIAC CONGENITAL & VALVULAR DISORDERS AGE 0-17	136	Quintile 2
147	RECTAL RESECTION W/O CC	146	Quintile 4
151	PERITONEAL ADHESIONOLYSIS W/O CC	150	Quintile 1
153	MINOR SMALL & LARGE BOWEL PROCEDURES W/O CC	171	Quintile 3
155	STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 W/O CC	171	Quintile 3
156	STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES AGE 0-17	171	Quintile 3
158	ANAL & STOMAL PROCEDURES W/O CC	157	Quintile 1
160	HERNIA PROCEDURES EXCEPT INGUINAL & FEMORAL AGE >17 W/O CC	178	Quintile 2
161	INGUINAL & FEMORAL HERNIA PROCEDURES AGE >17 W CC	178	Quintile 2
162	INGUINAL & FEMORAL HERNIA PROCEDURES AGE >17 W/O CC	178	Quintile 2
163	HERNIA PROCEDURES AGE 0-17	178	Quintile 2
164	APPENDECTOMY W COMPLICATED PRINCIPAL DIAG W CC	171	Quintile 3
165	APPENDECTOMY W COMPLICATED PRINCIPAL DIAG W/O CC	171	Quintile 3
166	APPENDECTOMY W/O COMPLICATED PRINCIPAL DIAG W CC	178	Quintile 2
167	APPENDECTOMY W/O COMPLICATED PRINCIPAL DIAG W/O CC	178	Quintile 2
169	MOUTH PROCEDURES W/O CC	178	Quintile 2
184	ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS AGE 0-17	183	Quintile 2
186	DENTAL & ORAL DIS EXCEPT EXTRACTIONS & RESTORATIONS, AGE 0-17	185	Quintile 3
187	DENTAL EXTRACTIONS & RESTORATIONS	185	Quintile 3
190	OTHER DIGESTIVE SYSTEM DIAGNOSES AGE 0-17	189	Quintile 2
192	PANCREAS, LIVER & SHUNT PROCEDURES W/O CC	193	Quintile 4
194	BILIARY TRACT PROC EXCEPT ONLY CHOLECYST W OR W/O C.D.E. W/O CC	199	Quintile 3
195	CHOLECYSTECTOMY W C.D.E. W CC	199	Quintile 3
196	CHOLECYSTECTOMY W C.D.E. W/O CC	199	Quintile 3
211	HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE >17 W/O CC	218	Quintile 3
212	HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE 0-17	218	Quintile 3
219	LOWER EXTREM & HUMER PROC EXCEPT HIP, FOOT, FEMUR AGE >17 W/O CC	218	Quintile 3
220	LOWER EXTREM & HUMER PROC EXCEPT HIP, FOOT, FEMUR AGE 0-17	218	Quintile 3
228	MAJOR THUMB OR JOINT PROC, OR OTH HAND OR WRIST PROC W CC	229	Quintile 2
232	ARTHROSCOPY	234	Quintile 1
252	FX, SPN, STRN & DISL OF FOREARM, HAND, FOOT AGE 0-17	234	Quintile 1



CHART 3.—No VOLUME LTC—DRG CROSSWALK AND QUINTILE ASSIGNMENT<sup>1</sup>—Continued

LTC-DRG	Description	Cross-walked LTC-DRG	Low volume quintile assigned
255 .....	FX, SPRN, STRN & DISL OF UPARM,LOWLEG EX FOOT AGE 0-17 .....	234	Quintile 1
258 .....	TOTAL MASTECTOMY FOR MALIGNANCY W/O CC .....	257	Quintile 2
259 .....	SUBTOTAL MASTECTOMY FOR MALIGNANCY W CC .....	257	Quintile 2
260 .....	SUBTOTAL MASTECTOMY FOR MALIGNANCY W/O CC .....	257	Quintile 2
261 .....	BREAST PROC FOR NON-MALIGNANCY EXCEPT BIOPSY & LOCAL EXCISION .....	262	Quintile 1
267 .....	PERIANAL & PILONIDAL PROCEDURES .....	157	Quintile 1
279 .....	CELLULITIS AGE 0-17 .....	278	Quintile 2
282 .....	TRAUMA TO THE SKIN, SUBCUT TISS & BREAST AGE 0-17 .....	281	Quintile 2
286 .....	ADRENAL & PITUITARY PROCEDURES .....	292	Quintile 4
289 .....	PARATHYROID PROCEDURES .....	290	Quintile 1
291 .....	THYROGLOSSAL PROCEDURES .....	290	Quintile 1
293 .....	OTHER ENDOCRINE, NUTRIT & METAB O.R. PROC W/O CC .....	149	Quintile 2
298 .....	NUTRITIONAL & MISC METABOLIC DISORDERS AGE 0-17 .....	297	Quintile 2
309 .....	MINOR BLADDER PROCEDURES W/O CC .....	311	Quintile 1
313 .....	URETHRAL PROCEDURES, AGE >17 W/O CC .....	311	Quintile 1
314 .....	URETHRAL PROCEDURES, AGE 0-17 .....	311	Quintile 1
322 .....	KIDNEY & URINARY TRACT INFECTIONS AGE 0-17 .....	326	Quintile 2
327 .....	KIDNEY & URINARY TRACT SIGNS & SYMPTOMS AGE 0-17 .....	329	Quintile 1
328 .....	URETHRAL STRICTURE AGE >17 W CC .....	324	Quintile 2
330 .....	URETHRAL STRICTURE AGE 0-17 .....	329	Quintile 1
333 .....	OTHER KIDNEY & URINARY TRACT DIAGNOSES AGE 0-17 .....	329	Quintile 1
334 .....	MAJOR MALE PELVIC PROCEDURES W CC .....	344	Quintile 4
335 .....	MAJOR MALE PELVIC PROCEDURES W/O CC .....	336	Quintile 3
337 .....	TRANSURETHRAL PROSTATECTOMY W/O CC .....	341	Quintile 2
338 .....	TESTES PROCEDURES, FOR MALIGNANCY .....	341	Quintile 2
340 .....	TESTES PROCEDURES, NON-MALIGNANCY AGE 0-17 .....	339	Quintile 1
343 .....	CIRCUMCISION AGE 0-17 .....	329	Quintile 1
349 .....	BENIGN PROSTATIC HYPERTROPHY W/O CC .....	348	Quintile 1
351 .....	STERILIZATION, MALE .....	348	Quintile 1
353 .....	PELVIC EVISCERATION, RADICAL HYSTERECTOMY & RADICAL VULVECTOMY .....	358	Quintile 5
354 .....	UTERINE,ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W CC .....	344	Quintile 4
355 .....	UTERINE,ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W/O CC .....	344	Quintile 4
356 .....	FEMALE REPRODUCTIVE SYSTEM RECONSTRUCTIVE PROCEDURES .....	344	Quintile 4
357 .....	UTERINE & ADNEXA PROC FOR OVARIAN OR ADNEXAL MALIGNANCY .....	344	Quintile 4
361 .....	LAPAROSCOPY & INCISIONAL TUBAL INTERRUPTION .....	149	Quintile 2
362 .....	ENDOSCOPIC TUBAL INTERRUPTION .....	149	Quintile 2
363 .....	D&C, CONIZATION & RADIO-IMPLANT, FOR MALIGNANCY .....	367	Quintile 3
364 .....	D&C, CONIZATION EXCEPT FOR MALIGNANCY .....	369	Quintile 2
370 .....	CESAREAN SECTION W CC .....	352	Quintile 3
371 .....	CESAREAN SECTION W/O CC .....	369	Quintile 2
372 .....	VAGINAL DELIVERY W COMPLICATING DIAGNOSES .....	369	Quintile 2
373 .....	VAGINAL DELIVERY W/O COMPLICATING DIAGNOSES .....	359	Quintile 1
374 .....	VAGINAL DELIVERY W STERILIZATION &/OR D&C .....	359	Quintile 1
375 .....	VAGINAL DELIVERY W O.R. PROC EXCEPT STERIL &/OR D&C .....	359	Quintile 1
376 .....	POSTPARTUM & POST ABORTION DIAGNOSES W/O O.R. PROCEDURE .....	359	Quintile 1
377 .....	POSTPARTUM & POST ABORTION DIAGNOSES W O.R. PROCEDURE .....	359	Quintile 1
378 .....	ECTOPIC PREGNANCY .....	369	Quintile 2
379 .....	THREATENED ABORTION .....	359	Quintile 1
380 .....	ABORTION W/O D&C .....	359	Quintile 1
381 .....	ABORTION W D&C, ASPIRATION CURETTAGE OR HYSTEROTOMY .....	359	Quintile 1
382 .....	FALSE LABOR .....	359	Quintile 1
383 .....	OTHER ANTEPARTUM DIAGNOSES W MEDICAL COMPLICATIONS .....	359	Quintile 1
384 .....	OTHER ANTEPARTUM DIAGNOSES W/O MEDICAL COMPLICATIONS .....	359	Quintile 1
385 .....	NEONATES, DIED OR TRANSFERRED TO ANOTHER ACUTE CARE FACILITY .....	360	Quintile 1
386 .....	EXTREME IMMATURITY .....	369	Quintile 2
387 .....	PREMATURITY W MAJOR PROBLEMS .....	369	Quintile 2
388 .....	PREMATURITY W/O MAJOR PROBLEMS .....	360	Quintile 1
390 .....	NEONATE W OTHER SIGNIFICANT PROBLEMS .....	369	Quintile 2
391 .....	NORMAL NEWBORN .....	360	Quintile 1
392 .....	SPLENECTOMY AGE >17 .....	177	Quintile 3
393 .....	SPLENECTOMY AGE 0-17 .....	149	Quintile 2
396 .....	RED BLOOD CELL DISORDERS AGE 0-17 .....	399	Quintile 1
402 .....	LYMPHOMA & NON-ACUTE LEUKEMIA W OTHER O.R. PROC W/O CC .....	400	Quintile 3
405 .....	ACUTE LEUKEMIA W/O MAJOR O.R. PROCEDURE AGE 0-17 .....	347	Quintile 2
407 .....	MYELOPROLIF DISORD OR POORLY DIFF NEOPL W MAJ O.R.PROC W/O CC .....	400	Quintile 3
411 .....	HISTORY OF MALIGNANCY W/O ENDOSCOPY .....	410	Quintile 1
412 .....	HISTORY OF MALIGNANCY W ENDOSCOPY .....	410	Quintile 1
417 .....	SEPTICEMIA AGE 0-17 .....	416	Quintile 3
422 .....	VIRAL ILLNESS & FEVER OF UNKNOWN ORIGIN AGE 0-17 .....	420	Quintile 1
441 .....	HAND PROCEDURES FOR INJURIES .....	229	Quintile 2

CHART 3.—NO VOLUME LTC–DRG CROSSWALK AND QUINTILE ASSIGNMENT<sup>1</sup>—Continued

LTC–DRG	Description	Cross-walked LTC–DRG	Low volume quintile assigned
446 .....	TRAUMATIC INJURY AGE 0–17 .....	445	Quintile 3
448 .....	ALLERGIC REACTIONS AGE 0–17 .....	455	Quintile 1
451 .....	POISONING & TOXIC EFFECTS OF DRUGS AGE 0–17 .....	455	Quintile 1
471 .....	BILATERAL OR MULTIPLE MAJOR JOINT PROCS OF LOWER EXTREMITY .....	209	Quintile 5
481 .....	BONE MARROW TRANSPLANT .....	394	Quintile 5
482 .....	TRACHEOSTOMY FOR FACE, MOUTH & NECK DIAGNOSES .....	55	Quintile 2
484 .....	CRANIOTOMY FOR MULTIPLE SIGNIFICANT TRAUMA .....	2	Quintile 5
485 .....	LIMB REATTACHMENT, HIP AND FEMUR PROC FOR MULTIPLE SIGNIFICANT TR .....	209	Quintile 5
491 .....	MAJOR JOINT & LIMB REATTACHMENT PROCEDURES OF UPPER EXTREMITY .....	209	Quintile 5
496 .....	COMBINED ANTERIOR/POSTERIOR SPINAL FUSION .....	233	Quintile 4
500 .....	BACK & NECK PROCEDURES EXCEPT SPINAL FUSION W/O CC .....	498	Quintile 3
502 .....	KNEE PROCEDURES W PDX OF INFECTION W/O CC .....	498	Quintile 3
504 .....	EXTENSIVE 3RD DEGREE BURNS W SKIN GRAFT .....	506	Quintile 5
507 .....	FULL THICKNESS BURN W SKIN GRFT OR INHAL INJ W/O CC OR SIG TRAUMA .....	508	Quintile 3
514 .....	CARDIAC DEFIBRILATOR IMPLANT W CARDIAC CATH .....	116	Quintile 3
516 .....	PERCUTANEOUS CARDIOVASCULAR PROCEDURE W AMI .....	116	Quintile 3
525 .....	HEART ASSIST SYSTEM IMPLANT .....	111	Quintile 5
526 .....	PERCUTANEOUS CARVIOVASCULAR PROC W DRUG-ELUTING STENT W AMI .....	116	Quintile 3
527 .....	PERCUTANEOUS CARVIOVASCULAR PROC W DRUG-ELUTING STENT W/O AMI .....	116	Quintile 3

<sup>1</sup> This chart does not reflect the six transplant LTC–DRGs (103, 302, 480, 495, 512, and 513) or the two “error” LTC–DRGs (469 and 470), for which we assign a relative weight of 0.0000.

To illustrate the methodology for determining relative weights for the 159 LTC-DRGs with no LTCH cases, we provide the following examples, which refer to the no volume LTC-DRGs crosswalk information provided above in Chart 3:

*Example 1:* There were no cases in the FY 2001 MedPAR file used for this final rule for LTC-DRG 3 (Craniotomy Age 0–17). Since the period of time surrounding the surgery and the post-operative care are similar in resource use and the length and complexity of the surgical procedures and the length of stay are similar, we determined that LTC-DRG 1 (Craniotomy Age > 17 Except for Trauma), which is assigned to low volume quintile 5 for the purpose of determining the relative weights, displayed similar clinical and resource use. Therefore, we assign the same relative weight of LTC-DRG 1 of 1.8783 (quintile 5) (Table 3 in the Addendum to this final rule) to LTC-DRG 3.

*Example 2:* There were no LTCH cases in the FY 2001 MedPAR file used in this final rule for LTC-DRG 91 (Simple Pneumonia and Pleurisy Age 0–17). Since the severity of illness in patients with bronchitis and asthma are similar in patients regardless of age, we determined that LTC-DRG 90 (Simple Pneumonia and Pleurisy Age > 17 without CC) displayed similar clinical and resource use characteristics and have a similar length of stay to LTC-DRG 91. There were over 25 cases in LTC-DRG 90. Therefore, it is not assigned to a low volume quintile for the purpose of determining the relative weights. However, under our methodology, LTC-DRG 91, with no LTCH cases, needs to be grouped to a low volume quintile. We identified that the quintile with the closest weight to LTC-DRG 90 (0.7921; see Table 3 in the Addendum to this final rule) was low volume quintile 3 (0.8284; see Table 3 in the Addendum to this final rule). Therefore, we assign LTC-DRG 91 a relative weight of 0.08284.

Furthermore, we establish LTC-DRG relative weights of 0.0000 for heart, kidney, liver, lung, pancreas, and simultaneous pancreas/kidney transplants (LTC-DRGs 103, 302, 480, 495, 512 and 513, respectively) because Medicare will only cover these procedures if they are performed at a hospital that has been certified for the specific procedures by Medicare. We only include these six transplant LTC-DRGs in the GROUPER program for administrative purposes. Since we use the same GROUPER program for LTCHs as is used under the acute care hospital inpatient prospective payment system, removing these DRGs would be

administratively burdensome. Based on our research, we found that most LTCHs only perform minor surgeries, such as minor small and large bowel procedures, to the extent any surgeries are performed at all. Given the extensive criteria that must be met to become certified as a transplant center for Medicare, we believe it is unlikely that any LTCHs would become certified as a transplant center. In fact, in the nearly 20 years since the implementation of the acute care hospital inpatient prospective payment system, there has never been a LTCH that even expressed an interest in becoming a transplant center.

Again, we note that as this system is dynamic, it is entirely possible that the number of LTC-DRGs with a zero volume of LTCH cases based on the system will vary in the future. We used the best most recent available claims data in the MedPAR file to identify zero volume LTC-DRGs and to determine the relative weights in this final rule.

Table 3 in the Addendum to this final rule lists the LTC-DRGs and their respective relative weights and arithmetic mean length of stay.

#### *B. Special Cases: General*

Under section 123 of Public Law 106–113, the Secretary generally has broad authority in developing the prospective payment system for LTCHs. The statute also provides the Secretary with broad authority in determining whether (and how) to make adjustments to LTCH prospective payment system payments. Section 307 of Public Law 106–554 directs the Secretary to “examine” appropriate adjustments to the LTCH prospective payment system, including certain specific adjustments, but the Secretary continues to have discretion as to whether to provide for adjustments to reflect variations in the necessary costs of treatment among LTCHs.

Generally, LTCHs, as described in section 1886(d)(1)(B)(iv) of the Act, are distinguished from other inpatient hospital settings by maintaining an average length of stay greater than 25 days. However, LTCHs also have certain “special” cases that have stays of considerably less than the average length of stay and that receive significantly less than the full course of treatment for a specific LTC-DRG. Such cases would be paid inappropriately if the hospital were to receive the full LTC-DRG payment. Further, because of the budget neutrality requirement of section 123(a)(1) of Public Law 106–113, “overpayment” for these “special” cases would reduce payments for all other cases that warrant full payment based on the LTCH services delivered. We discuss the special cases below in terms

of definitions, policy rationale, and payment methodology.

In the proposed rule, we proposed three subsets of special cases: very short-stay discharges, short-stay outlier discharges, and interrupted stays. In this final rule, in response to comments, we are not adopting our policy concerning very short-stay discharges, and are instead extending a revised short-stay outlier policy to include stays of 1 to 7 days, as explained in the comments and responses regarding short-stay outliers in section X.C. of this preamble.

However, we have specifically addressed the comments regarding very short-stay discharges in section X.D. of this preamble. Also, in response to comments, we are simplifying our interrupted stay policy to incorporate a methodology that relies on a fixed number of days to determine payment for readmission from acute care hospitals or IRFs, as explained in section X.E. of this preamble.

#### *C. Special Cases: Short-Stay Outliers*

In the March 22, 2002 proposed rule, we proposed to apply a special payment policy to short-stay cases with a length of stay between 8 and two-thirds the average length of stay for each LTC-DRG. We based the proposed policy on the belief that many of these patients could have been treated more appropriately in an acute hospital subject to the acute care hospital inpatient prospective payment system. Therefore, we proposed to implement a short-stay outlier policy for cases with a length of stay beyond 7 days, but not more than two-thirds the average length of stay for the DRG.

A short-stay outlier case may occur when a beneficiary receives less than the full course of treatment at the LTCH before being discharged. These patients may be discharged to another site of care or they may be discharged and not readmitted because they no longer require treatment. Furthermore, patients may expire early in their LTCH stay.

As noted above, generally LTCHs are defined by statute as having an average length of stay of greater than 25 days. We believe that a payment adjustment for short-stay outlier cases results in more appropriate payments, since these cases most likely would not receive a full course of treatment in such a short period of time and a full LTC-DRG payment may not always be appropriate. Payment-to-cost ratios simulated for LTCHs, for the cases described above, show that if LTCHs receive a full LTC-DRG payment for those cases, they would be significantly “overpaid” for the resources they have actually expended.

We also believe that providing a reduced payment for short-stay outlier cases neither encourages hospitals to admit patients for whom they knowingly are unable to provide complete treatment in order to maximize payment, nor severely penalizes providers that, in good faith, admit a patient and provide some services before realizing that the beneficiary would receive more appropriate treatment at another site of care. As explained in the proposed rule, establishing a short-stay outlier payment for these types of cases addresses the incentives inherent in a discharge-based prospective payment system for LTCHs for treating patients with a short length of stay. One of the primary objectives of a prospective payment system is to provide incentives for hospitals to become more efficient and, in doing so, to ensure that they can still receive adequate and appropriate payments. Because the LTCH prospective payment system rates are set to be budget neutral, providing a full prospective payment system payment for those cases that do not actually require the full course of treatment would reduce payments for cases that warrant full payment based on the LTCH services furnished. Therefore, we continue to believe that a short-stay outlier policy permits more equitable payment.

In considering possible short-stay outlier policies, we sought to balance appropriate payments to shorter stay cases, which are generally less expensive than the average case in each LTC-DRG, and payments to the more expensive inlier cases (as defined in section X.A.2. of this preamble) in each LTC-DRG. In the absence of a short-stay outlier policy, based on analysis of payment-to-cost ratios, the full LTC-DRG payment would "overpay" the short-stay cases and "underpay" the inlier cases. We estimated that a short-stay outlier policy that results in payment-to-cost ratios that are at (or close to) 1.0 would ensure appropriate payments to both short-stay and inlier cases within a LTC-DRG because, on average, payments closely match costs for these cases under this prospective payment system.

With no short-stay outlier policy, we estimated that payment-to-cost ratios would be greater than 2.0 for cases with lengths of stay below the average length of stay for the LTC-DRG. In the proposed rule, we considered determining adjustments to the per discharge payment using the following three alternative short-stay outlier threshold policies:

- The least of 100 percent of the cost of the case, 100 percent of the LTC-DRG

specific per diem amount multiplied by the length of stay, or the full LTC-DRG payment for cases with a length of stay between 8 days and the average length of stay of the LTC-DRG;

- The least of 150 percent of the cost of the case, 150 percent of the LTC-DRG specific per diem amount multiplied by the length of stay, or the full LTC-DRG payment for cases with a length of stay between 8 days and two-thirds of the average length of stay of the LTC-DRG; or

- The least of 200 percent of the cost of the case, 200 percent of the LTC-DRG specific per diem amount multiplied by the length of stay, or the full LTC-DRG payment for cases with a length of stay between 8 days and half of the average length of stay of the LTC-DRG.

In each of the three alternatives examined, the short-stay outlier day threshold corresponds to the day where the full LTC-DRG payment would be reached by paying the specified percentage of the per diem amount for the LTC-DRG. This would result in a gradual increase in payment as the length of stay increases without producing a "payment cliff," which will provide an incentive to discharge a patient one day later because there will be a significant increase in the payment.

Our analysis in the proposed rule showed that of these three options, in conjunction with the proposed very short-stay discharge policy, the most appropriate policy for short-stay outliers was to adjust the per discharge payment by paying the least of 150 percent of cost, 150 percent of the LTC-DRG per diem amount, or the full LTC-DRG payment. The analysis showed that payment-to-cost ratios for both cases that would be identified as short-stay outliers and inlier cases (that are below the high-cost outlier threshold) will be at or slightly above 1.0. We believed that this alternative would most appropriately pay cases identified as short-stay outliers, inlier cases, and longer stay cases without an incentive to provide inefficient care.

Payment simulations that we conducted for the proposed rule showed that, of the LTCH cases in the FY 2000 MedPAR file with a length of stay between 8 days and two-thirds of the average length of stay of the LTC-DRG under the system, payment to 60.8 percent of those cases would be capped at 150 percent of cost. Therefore, we proposed to define a short-stay outlier as a case that had a length of stay between 8 days and two-thirds of the arithmetic average length of stay for each LTC-DRG (proposed § 412.529). We also proposed to adjust the per discharge payment by paying a short-

stay outlier case (defined in proposed § 412.529(a)) the least of: (1) 150 percent of the LTC-DRG specific per diem amount multiplied by the length of stay; (2) 150 percent of the cost of the case; or (3) the full LTC-DRG payment (proposed § 412.529(c)(1)).

We proposed to determine the LTC-DRG specific per diem based payment using the standard Federal payment rate (Federal payment rate  $\times$  LTC-DRG weight) and the arithmetic mean length of stay of the specific LTC-DRG (proposed § 412.529(c)(2)). We proposed that the cost of a case would be determined using the hospital-specific cost-to-charge ratio and the Medicare allowable charges for the case (proposed § 412.529(c)(3)).

*Comment:* Several commenters supported the proposed short-stay outlier policy. However, they recommended that this policy also be used as the basis for payment for cases in which the LTCH stay is 7 days or less in lieu of our proposed very short-stay discharge policy.

*Response:* We appreciate the commenters' support for the short-stay outlier policy and the suggestion to apply it to stays of 7 days or less, which, in the proposed rule, fell under the very short-stay discharge policy. Accounting for stays significantly under the average length of stay in a LTCH is an important feature of a LTCH prospective payment system.

In response to the commenters' recommendation, we reconsidered the policies for both the very short-stay discharge and the short-stay outlier. Policy considerations underlying the short-stay outlier and the proposed very short-stay discharge categories were similar. Patient stays that fell under either category were not likely to have received a full course of treatment and, therefore, for these cases, LTCHs should not receive payment based on the provision of a full course of treatment. Based on the similar policy underpinnings of each policy and our awareness of the payment "cliff" effect between stays with a length of stay of 7 days and a length of stay of 8 days, we revisited our data. As a result of our reevaluation, we have determined that we can still meet the goals of our policy considerations by eliminating the very short-stay discharge policy and extending a modified version of the short-stay outlier policy to days 1 through 7 in the LTCH length of stay.

In order to accommodate the addition of cases with a length of stay of 7 days or less to the short-stay outlier payment category, we analyzed numerous data simulations to determine how to reasonably adjust the proposed payment

percentage formula, for example, the lesser of 150 percent of cost or 150 percent of the LTC-DRG specific per diem amount multiplied by the length of stay. If we were to simply maintain the proposed methodology for short-stay outliers and apply it to discharges with a length of stay between 1 and 7 days, we found that we would be “overpaying” significantly for those stays and “underpaying” for stays categorized as inliers. We considered adjusting the percentage to 130 or 125 percent; however, we found these percentages did not result in payments with an appropriate disincentive for admitting patients who are likely to stay at the LTCH for 7 days or less. After additional simulations, we determined that the most appropriate percentage that maintains a payment-to-cost ratio of approximately 1 for 7 days or less is 120 percent. We determined that if we adjust the payment percentage from 150 to 120 percent, we also need to adjust the upper day threshold from two-thirds of the average length of stay for the LTC-DRG to five-sixths of the geometric average length of stay for the LTC-DRG. As discussed in detail later in this section, we found that five-sixths of the geometric (versus the arithmetic)

average length of stay would be the short-stay outlier threshold where the full LTC-DRG payment would be made at 120 percent. That is, by adjusting the per discharge payment by paying at 120 percent of the per diem DRG payment, once a stay reaches five-sixths of the geometric average length of stay for the LTC-DRG, the full DRG payment will have been made. This results in a gradual increase in payment as the length of stay increases. If we retained the original two-thirds of the average length of stay for the LTC-DRG criteria, it would have produced a payment “cliff” that would have provided an incentive to extend a patient’s stay for one or more days beyond the “two-thirds average day” in order to receive a significant increase in payment.

As a result of this analysis, in this final rule, we are revising the short-stay outlier policy to adjust the per discharge payment by paying the least of 120 percent of the cost of the case, 120 percent of the LTC-DRG specific per diem amount multiplied by the length of stay of that discharge, or the full LTC-DRG payment, for all cases with a length of stay up to and including five-sixths of the geometric average length of stay of the LTC-DRG.

As a consequence of our elimination of the very short-stay discharge policy, the reduction to the percentage from 150 to 120 percent, and the extension of the upper day threshold from two-thirds of the arithmetic average length of stay to five-sixths of the geometric average length of stay, the standard Federal base rate increased from \$27,649 in the proposed rule to \$34,956 in this final rule. The reduction in the percentage to 120 percent does not necessarily correlate to a reduction in payment under the revised short-stay outlier policy since the 120 percent is applied to a higher LTC-DRG payment. Furthermore, because we are ultimately constrained by maintaining budget neutrality, a change in one policy may require corresponding changes to other policies. However, these changes are not necessarily substantial, and, as a result, the overall effects of our changes in this final rule may be minimal. For example, when we consider how the elimination of the very short-stay discharge policy actually impacts payment under the LTCH prospective payment system for LTC-DRGs 271 and 461, the actual adjusted payment for these DRGs did not change significantly between the proposed rule and the final rule.

Rule	Base rate (BR)	DRG	Description	Relative weight (RW)	Average length of stay (ALOS)	Full DRG payment (BR*RW)	Per diem (full DRG pay/ALOS)	Payment per day at appropriate percentage
Proposed (150%) ..	\$27,649	271	Skin Ulcers .....	1.2354	39.1	\$34,158	\$873	\$1,310
Final (120%) .....	34,956	271	Skin Ulcers .....	0.9714	31.1	33,956	1,092	1,310
Proposed (150%) ..	\$27,649	416	Septicemia Age >17	1.1222	29.4	\$31,028	\$1,055	\$1,583
Final (120%) .....	34,956	416	Septicemia Age >17	0.9612	25.9	33,600	1,297	1,557

Thus, despite the reduction of the percentage from 150 to 120 percent, it is evident that the actual payment differences between the two policies are remarkably minimal.

To summarize, the results of the changes in this final rule to the short-stay outlier policy are as follows: (1) The percentage that is applied to determine payment under the short-stay outlier policy is changed from 150 percent to 120 percent; (2) the number of discharges paid as short-stay outliers will increase, due to the inclusion of cases that would formerly have been paid as very short-stay discharges; (3) the upper day threshold for short-stay outliers is extended from two-thirds of the arithmetic average length of stay for a LTC-DRG to five-sixths of the geometric average length of stay for the LTC-DRG; (4) the cases that fell under the very short-stay discharge policy in the proposed rule will now be paid at

a higher rate under the revised short-stay outlier policy; (5) the standard Federal base rate will increase, resulting in higher overall payments being made to inliers and a higher base amount upon which short-stay outlier payments are determined; and (6) the fixed-loss amount for high-cost outliers will decrease (see section X.J.6. of this preamble for information on high-cost outliers).

*Comment:* A number of commenters considered our proposal to pay the least of three payment amounts for short-stay outliers to be too burdensome. They indicated a preference to a one-payment methodology, regardless of the number of days of a patient’s stay. Some commenters recommended elimination of the payment related to a percentage of cost because they believed this method creates the wrong incentive and does not reward efficiency. The commenters added that the definition of

“cost” under the short-stay outlier payment provision is confusing because it is not clear whether the “hospital-specific cost-to-charge ratio” used in the proposed rule applies to the current year, the prior year, or some other period.

*Response:* We do not agree with the commenters that the calculation of the short-stay outlier payment is a burden on the LTCH. The Medicare payment for short-stay outliers using the least of the three payment amounts is determined by the fiscal intermediary with the PRICER software developed specifically for the LTCH prospective payment system. The LTCH is not required to calculate which of the payment options is appropriate for each individual discharge. Rather, the intermediary is responsible for this calculation.

We also do not agree with the commenters that a LTCH’s payment should be based on a one-payment

methodology, regardless of the patient's length of stay. As we have stated above, a single payment that does not account for shorter lengths of stay would "overpay" the short-stay cases and "underpay" the inlier cases.

Furthermore, since under this final rule, Medicare will adjust the per discharge payment by paying the least of 120 percent of the cost of the case, 120 percent of the LTC-DRG specific per diem amount multiplied by the length of stay of that discharge, or the full LTC-DRG payment for cases with a length of stay up to and including five-sixths of the geometric average length of stay of the LTC-DRG, we do not believe a lesser payment based on 120 percent of the cost of the case creates the wrong incentives. Finally, the costs used to determine Medicare payment under the short-stay outlier policy are taken from the cost-to-charge ratio appearing on the most recent cost report as submitted by the LTCH to the fiscal intermediary.

*Comment:* One commenter indicated that the payment amount for short-stay outliers is too high and provides for reimbursement that exceeds costs by 50 percent.

*Response:* The commenter is incorrect in stating that, under the proposed rule, payment for short-stay outliers would exceed costs by 50 percent. Under the proposed rule, LTCHs would not have necessarily been provided with a payment that exceeded costs by 50 percent, since the proposed short-stay policy would have paid the least of 150 percent of the cost of the case, 150 percent of the LTC-DRG specific per diem amount multiplied by the length of stay of that discharge, or the full LTC-DRG payment. Depending on the stay, any one of the three payment categories could have applied, two of which were not related to costs. In addition, the short-stay outlier policy to which the commenters are referring has been changed in the final rule, as explained above. Under the revised short-stay outlier methodology in this final rule, the percentage upon which short-stay outlier payment is based is no longer 150 percent, but is now 120 percent. We prepared extensive payment simulations in order to develop an equitable short-stay payment policy for implementation in the prospective payment system described in this final rule. In reconsidering the policy, we factored in the elimination of the very short-stay discharge policy and the inclusion of days 1 through 7 into the short-stay outlier policy. We determined that the least of 120 percent of the cost of the case, 120 percent of the LTC-DRG specific per diem amount multiplied by the length of stay, or the

full LTC-DRG payment for cases with a length of stay up to and including five-sixths of the geometric average length of stay of the LTC-DRG would be a reasonable payment for short-stay outlier cases. At this percentage, we found that there were still payment-to-cost ratios that provided a disincentive for admission of patients that were likely to stay 7 days or less. We also determined that at 120 percent, stays falling under the short-stay outlier category would not be "overpaid" and a larger amount of total payments would be made for the care of true inlier patients.

*Comment:* Several commenters indicated that the short-stay and very short-stay outlier payment amounts are too low. They recommended that, since short-stay cases have medical therapies and treatment provided on the day of admission, short-stay outliers should be grouped into the appropriate LTC-DRG and paid at 200 percent of the specific LTC-DRG per diem for the first day of admission and 100 percent of the per diem for each day of stay thereafter. Other commenters recommended a 150-percent per diem for the first day and a 100-percent per diem for each day afterward, based on the specific LTC-DRG. Both groups of commenters believe that a policy of an increased payment for the first day of the stay is consistent with our policy on payment for transfers under the acute care hospital inpatient prospective payment system.

*Response:* As noted above, in response to public comments, we have revised the proposed very short-stay discharge policy. Under the revised short-stay policy, all short-stays, even those with a length of stay between 1 and 7 days, will be grouped into their specific LTC-DRGs. In response to the suggestion that we should provide for an increased payment for the first day of the stay consistent with payments under the acute care hospital inpatient prospective payment system, we call the commenters' attention to the distinctions between the treatment and care of patients at acute care hospitals and the treatment and care at LTCHs. For acute care hospitals, existing regulations at § 412.4(f) establish a payment rate of twice the per diem amount for the first day of the stay at the acute care hospital for the 10 DRGs included in the special transfer rule and payment at the per diem amount for each subsequent day, up to the full DRG payment. This policy presumes that the patient has been admitted as an inpatient to the acute care hospital with an acute medical condition. Even if the patient did not receive a full course of

treatment at the acute care hospital and was subsequently transferred to a LTCH or another excluded hospital, SNF, or HHA, the immediate diagnostic care and patient stabilization required during that first day is resource-intensive and costly.

There are several reasons why we do not believe it is appropriate to adopt this policy for short-stays under the LTCH prospective payment system. First, according to research done by Urban, as well as anecdotal reports contained in many of the comments we received, a significant majority of LTCH patients are admitted from an acute care hospital, their medical conditions having been diagnosed and treated and their conditions stabilized to the extent that they can be discharged for additional hospital-level care at a LTCH. In this common situation, we do not believe that the costs incurred on that first day would reasonably exceed by 100 percent, or even by 50 percent, the costs of each subsequent day of hospitalization.

Second, the calculations that determined the daily payments under the short-stay policy were derived from the DRG-specific payment rate that is based on the average length of stay for each LTC-DRG. This means that when the patient is appropriately hospitalized in a LTCH over the course of the stay, any higher costs incurred in the first days of the stay were already accounted for in calculating the LTC-DRG relative weight. Finally, we reiterate that we are not finalizing the proposed very short-stay discharge policy and are instead extending the revised short-stay outlier policy to stays of 7 days or less. We believe that the short-stay outlier policy that we have promulgated in this final rule strikes an appropriate balance between not encouraging the inappropriate admission of short-stay patients to LTCHs while providing reasonable and equitable payments for Medicare patients who may have been admitted in good faith, but whose stays fall in a range below the average length of stay for a LTCH.

*Comment:* Several commenters believed that the short-stay outlier upper day threshold is too high and pointed to evidence that suggests that under the proposed LTCH prospective payment system, nearly half of all LTCH cases would be reimbursed on a per diem rather than on a discharge basis as required under the law. They believed that having a large number of cases reimbursed on a per diem basis discourages the efficiency of a discharge-based prospective payment system.

The commenters recommended the use of an upper day threshold of one-half the arithmetic average length of stay. They believed this upper day threshold would reduce the high industry-wide portion of cases that would be paid on a per diem basis.

In addition, one commenter noted that the very short-stay discharges were removed from the calculation of the average length of stay for each LTC-DRG, thereby inflating each mean. In effect, the commenter indicated that cases with shorter lengths of stay (1 through 7 days) are not included in calculating the average length of stay; and as a result, the average length of stay for each LTC-DRG is higher. This commenter believed that the application of the threshold of two-thirds to an "inflated" average length of stay would penalize LTCHs twice for short-stay outlier patients.

**Response:** The LTCH prospective payment system in this final rule was designed predominantly to encourage efficiency in LTCHs treating patients requiring long-term hospital-level care. This system functions on a per discharge basis that complies with statutory requirements, and provides for adjustments for concerns specific to LTCHs. In fact, the LTCH prospective payment system is structured so that greater overall dollars are spent on cases that approximate the 25-day average stay of a LTCH patient, which encourages LTCHs to admit and efficiently treat patients who specifically need long-term care. Using the upper day threshold of one-half, as the commenter suggested, may indeed reduce the number of cases paid under the adjusted per discharge short-stay outlier policy. However, for the reasons given in this response, the commenter's suggestion does not comport with the overall goals of the LTCH prospective payment system; and we are not adopting it.

Although the regression analyses and simulations based on prior years' TEFRA data may seem to indicate that nearly half of LTCH cases will be paid on an adjusted per discharge amount, we believe this data analysis does not necessarily predict the future behavior of LTCHs operating under a prospective payment system. The data used in the analysis are a product or reflection of the practice patterns of hospitals that operate under the mechanisms of the TEFRA payment system, which are different from the principles of a prospective payment system. However, these are the best data available upon which we can simulate LTCH behavior under the new LTCH prospective payment system. We believe that once

the LTCH prospective payment system is implemented, the practice patterns of LTCHs will change. We anticipate that hospitals will alter their admission, treatment, and discharge patterns. Thus, we fully expect that an increasing majority of cases will be reimbursed on an unadjusted per discharge basis during the transition from reasonable cost-based reimbursement to prospective payments. The transition period of 5 years, designed to allow LTCHs to gradually adapt to the LTCH prospective payment system, should give LTCHs the opportunity to alter admission, discharge, treatment, and transfer patterns as needed for maximum clinical, as well as administrative, efficiency.

Based on our experience in implementing other Medicare prospective payment systems, we fully expect that as new data are received, we may revisit policy decisions described in this final rule. Furthermore, our Office of Research, Development, and Information will be tracking the impact of the prospective payments on LTCHs, other hospitals that treat long-term care patients, and other postacute care providers, which will enable us to determine whether additional policy changes are warranted.

As explained previously, the short-stay outlier upper day threshold corresponds to the day where the full LTC-DRG payment would be reached by paying the specified percentage of the per diem amount for the LTC-DRG. This threshold was chosen to create a gradual increase in payment as the length of stay increases without producing a payment "cliff". In the proposed rule, short-stay outlier payments were limited by 150 percent of the per diem amount for the LTC-DRG. Accordingly, the upper day threshold was also established at two-thirds to assure that the full DRG payment would be paid should the patient's stay equal two-thirds of the arithmetic average length of stay of the LTC-DRG.

Because we revised the proposed short-stay outlier policy for this final rule to also apply to discharges that had been proposed to be paid as very short-stay discharges, as requested by the commenters, we also reviewed the methodology for calculating the average length of stay for each LTC-DRG to determine the percentage of discharges that will be treated as short-stay outliers. Although we had originally used the arithmetic mean (which is the most commonly used measure of central tendency) for this calculation in the proposed rule, we now believe that there are certain statistical advantages,

such as increased mathematical stability and accuracy, in using the geometric mean for determining the average length of stay for each LTC-DRG in the revised short-stay outlier policy. Lengths of stays within a DRG are log-normally distributed. This is because each individual length of stay may or may not be extremely long, but it cannot be less than zero. A log-normal distribution, by definition, is normal when converted to logarithms. After further simulations and research, we have found that the geometric mean is statistically more accurate in locating the center of the distribution of length of stays within a DRG, which is the result we desire. In addition, geometric weights are not likely to be influenced by a few very long-stay cases and, therefore, are more stable over time. Accordingly, we are revising our calculation for determining length of stay for short-stay outliers to account for the geometric mean. In the acute care hospital inpatient prospective payment system postacute transfer policy (§ 412.4(f)), the geometric mean length of stay for each DRG is used to determine per diem payments. For the reasons outlined above, we believe that it is desirable to adopt a methodology in the final rule consistent with that used in the acute care hospital inpatient prospective payment system.

In this final rule, we have set the per discharge adjustment for each LTC-DRG at 120 percent of the adjusted per diem amount for each LTC-DRG for the short-stay outlier policy. The corresponding upper day threshold that must be established to assure that the full DRG payment is made by the last day of the short-stay outlier payment is five-sixths of the geometric average length of stay of the LTC-DRG. We are aware that this upper day threshold may initially create a situation where there are a higher number of cases that are paid on an adjusted per discharge-basis. However, we expect significant changes in the types of patients admitted to LTCHs, as LTCHs adjust to the prospective payment system, which will reduce the number of patients in LTCHs that are paid as short-stay outliers.

We disagree that our method of calculating the average length of stay for the short-stay outlier policy would penalize LTCHs twice. As the commenter indicated, we do not include days 1 through 7 in the calculation of the average length of stay for each LTC-DRG. Even though we are now incorporating days 1 through 7 into the short-stay outlier payment category, our simulations have indicated that by including these extremely short stays in our mean calculations, the average



length of stay for each LTC-DRG would be inappropriately reduced and would then significantly bias payments against inlier cases. If stays of 7 days or less were included in the calculations of the average length of stay for each LTC-DRG, then the mean of each LTC-DRG would decrease and stays of shorter days would qualify for a full LTC-DRG payment. As the system must be budget neutral, this leads to a situation where more total dollars of payment would be shifted to shorter stays and, therefore, longer stays would receive less payment. We do not believe that it is appropriate to decrease payment to longer stays that actually receive a more representative and complete course of care in order to increase payments to shorter stays. Therefore, in this final rule, we continue to exclude stays of 7 days or less from our calculations of the average length of stay for each DRG, as was provided for in the proposed rule.

In addition, in the proposed rule, cases of 7 days or less were assigned to two specific DRGs in the proposed rule, and their costs were factored into those DRG weights. Although cases that we proposed to be assigned as very short-stay discharges are paid in this final rule under the category of short-stay outliers, we continue to believe that cases with stays of up to 7 days should not be included in the calculation of relative weights. This is because DRG relative weights should reflect the average of resources used on representative cases of a specific type. Stays of 7 days or less do not receive or benefit from treatment that is typical in a LTCH stay. Full resources are not used in the earlier stages of admission to a LTCH. If we did include stays of 7 days or less in the computation of the relative weights, the value of most weights would decrease and, therefore, inlier payments would decrease. We do not believe that it is appropriate to compromise the integrity of the payment determination at the expense of those inlier cases that actually benefit from and receive a full course of treatment at a LTCH, in order to include these very short-stays in the computation of the relative weights. (As noted in section X.A.2. of this preamble, stays of 8 days or over are included in the calculations of the relative weights on a fractional basis.)

Nevertheless, for payment purposes, we are treating LTCH stays of 7 days or less as short-stay outliers, since we believe that a LTCH should not be penalized for those occasions when, in good faith, it admits a patient, who shortly after admission, expires or is transferred to a more appropriate setting. We also believe that incorporating payments for stays of 7

days or less into the final short-stay outlier formula considerably simplifies the payment system.

After consideration of the public comments received and reevaluating our proposed policy, we are adopting as final a short-stay outlier policy that will apply to all LTCH admissions with a length of stay up to and including five-sixths of the geometric average length of stay of the LTC-DRG. The short-stay outlier policy will pay the least of 120 percent of the cost of the case, 120 percent of the LTC-DRG specific per diem amount multiplied by the length of stay for that discharge, or the full LTC-DRG payment.

#### *D. Proposed Payments for Special Cases of Very Short-Stay Discharges*

As mentioned earlier in section X.B. of this preamble, in the March 22, 2002 proposed rule, we proposed at § 412.527 to define a very short-stay discharge as a discharge that has a length of stay of 7 days or less (regardless of the LTC-DRG assignment), irrespective of the discharge designation (including cases where the patient expires). We indicated that a very short-stay discharge often occurs when it is determined, following admission to a LTCH, that the beneficiary would receive more appropriate care in another setting. For example, a patient may experience an acute episode or require more intensive rehabilitation therapy than is available at the LTCH. Other circumstances that we believed would warrant classification as a very short-stay discharge would involve patients who were either discharged to their home or who expired within the first 7 days of being admitted to a LTCH.

Since LTCHs are defined by statute as generally having an average length of stay greater than 25 days, we proposed to make an adjustment for very short-stay discharges in order to make appropriate payment to cases that may not necessarily require the type of services intended to be provided at a LTCH or may have been transferred from an acute hospital prematurely. Further, we believed that providing a special payment for very short-stay discharges neither encourages hospitals to admit patients for whom they knowingly are unable to provide complete treatment in order to maximize payment, nor severely penalizes providers that, in good faith, admit a patient and provide some services before realizing that the beneficiary will receive more appropriate treatment at another site of care.

As stated in the proposed rule, we also believed that establishing a special

payment for a discharge with a very short length of stay is critical in implementing a discharge-based prospective payment system. Because the rates are set to be budget neutral, if we did not make an adjustment for stays significantly shorter than the average length of stay in a LTCH, providing a full prospective payment system payment for very short-stay LTCH cases would inappropriately reduce payments for nonshort-stay LTCH cases.

To improve the accuracy of the payments, we proposed to categorize very short-stay discharge cases into two categories based on the primary diagnosis—one for psychiatric cases and one for all other types of cases. We believed it would be appropriate to separate very short-stay discharge cases into psychiatric and nonpsychiatric categories because our analysis showed that the resources used to treat these two types of patients during the first 7 days differ significantly. In our simulations, combining psychiatric very short-stay discharge cases with all other very short-stay discharge cases resulted in a considerable “overpayment” for the very short-stay discharge psychiatric cases and a substantial “underpayment” of all other (nonpsychiatric) very short-stay discharge cases. A detailed explanation of the proposed split of very short-stay outliers into two categories and the proposed assignment to LTC-DRGs appears in the proposed rule published in the **Federal Register** on May 22, 2002 (67 FR 13453–13454). We proposed to calculate the relative weights for the two very short-stay discharge LTC-DRGs using the hospital-specific relative value methodology. The very short-stay discharge LTC-DRG per diem amount would have been determined by dividing the applicable Federal payment rate (Federal payment rate  $\times$  LTC-DRG weight) by 7 days.

*Comment:* Many of the commenters questioned the basis for treating cases with a length of stay of 7 days or less as very short-stay discharges. They indicated that the policy ignores the difficult clinical decisions that LTCHs consistently face daily and that the policy will severely penalize providers who in good faith admit a patient, but the patient exhausts their Medicare Part A number of day benefits within 8 days of admission, or the patient's condition worsens and later needs treatment elsewhere, or the patient dies. They added that the very short-stay policy would create financial incentives for LTCHs to avoid patients close to the end of Medicare coverage for hospital stays, but who need LTCH care. These commenters suggested that the very short-stay policy be abandoned in favor

of an extension of the short-stay outlier policy to cases that have stays of 7 days or less.

Some commenters urged us to eliminate the “cliff” between the payment of a 7-day very short-stay and the payment of an 8-day short-stay outlier, which could be as much as \$10,000, depending on the DRG. They indicated that this “cliff” could encourage LTCHs to keep patients extra days simply to receive the windfall that occurs at day 8 and suggested that we apply the proposed short-stay outlier policy to all stays of 7 days or less.

*Response:* Our data analyses of the MedPAR files from FY 1999 through FY 2000 originally led us to differentiate between LTCH stays of 7 days or less and those of more than 7 days, but still considerably less than the average length of stay for the LTC-DRG to which the stay was grouped. (See section X.C. for our discussion on short-stay outliers.) However, after reconsidering the policy in light of the commenters’ concerns, including the need to eliminate the incentive for LTCHs to keep patients additional days simply to receive the monetary windfall that occurs with a payment “cliff”, we have decided to eliminate this category of patient stays, and instead, extend the now revised short-stay outlier policy to stays of 7 days or less, as discussed in detail in section X.C. of this final rule.

The short-stay outlier policy, when extended to stays of 7 days or less, addresses our concerns of “overpaying” for incomplete treatment, while also recognizing and appropriately compensating LTCHs for expenses related to treating patients that have a shortened length of stay due to deaths or for care of patients who are not actually discharged, but whose Medicare coverage is exhausted within 7 days or less of their admission. (The issue of deaths occurring within the first 7 days is discussed in more detail in the next comment.) Specifically, with regard to the commenters’ concerns about patients who exhaust their Medicare coverage in 7 days or less of their stay in the LTCH, since many LTCH patients are admitted to a LTCH following a hospitalization at an acute care hospital, it is possible that a patient who could benefit from continued medical care at a LTCH could have used up the maximum 150 Medicare days allowed for that spell of illness. We wish to clarify that under the final rule, Medicare payments for patients that have 7 days or less remaining days of Medicare coverage will receive payment based on the revised short-stay outlier policy in this final rule.

With respect to patients whose conditions suddenly worsen within the first 7 days of admission, while the ultimate outcome for any given patient may be difficult to predict at the time of admission, LTCHs by and large should be admitting patients who predictably need the particular type of care that LTCHs offer. LTCH patients often present with multiple comorbidities, but their overall condition in most cases should be relatively stable if they were discharged from an acute care hospital and do not require the intense intervention associated with acute care hospitals. Further, in admitting such patients, we believe that LTCH personnel should determine that these patients actually require and can benefit from hospital-level care for what is intended to be an average stay of greater than 25 days. Even if a LTCH is focusing on admitting the appropriate types of patients, it may still infrequently admit patients whose conditions suddenly worsen. We believe that the number of unpredictable cases would be small, and payment for simpler cases, requiring fewer resources, should typically balance out higher cost cases of stays that are 7 days or less that are unforeseeable.

In addition, we note that with the elimination of the very short-stay discharge policy, most cases with a stay of 7 days or less will now be paid at the higher DRG-specific short-stay outlier rate. Moreover, for the highly unusual phenomenon of a short-stay case that actually falls into the high-cost outlier category, outlier payments will be available once the patient’s costs exceed the payments under the short-stay outlier policy and the fixed loss threshold, under § 412.525.

Based on our policy revision regarding the elimination of the very short-stay discharge payment category, we do not anticipate any penalty, as described by the commenter, for stays of 7 days or less that were admitted in good faith. In establishing a payment category for shorter stays that, in an increasing progression, reflects the LTCH resources used for a specific episode of care, we believe that we have effectively and equitably addressed the problem of treating short-term patients in a LTCH.

We appreciate the comments concerning the “payment cliff,” which potentially could have provided a significant incentive for LTCHs to keep patients who would otherwise have been paid for as very short-stay discharges. Our concern also about this “cliff” effect created by payments under the proposed very short-stay policy contributed to our decision to eliminate

the policy. In this final rule, we are establishing a policy for all cases with a length of stay up to and including five-sixths of the geometric average length of stay of the specific LTC-DRG (including stays of 7 days or less). These cases will be paid under the short-stay outlier policy, thus eliminating the incentives present with the “cliff.” Under the short-stay outlier policy, there will be a steady daily increase in payments beginning with the first day, without a windfall payment on any given day, as described in section X.C. of this preamble, and LTCHs will be encouraged to base discharge decisions on clinical judgment rather than on financial gain.

*Comment:* Some commenters indicated that the severity of a LTCH patient’s medical condition is typically very high upon admission, requiring significant resources and resulting in high costs within the first several days. The commenters pointed out that the DRG weights assigned to the proposed very short-stay discharges for determining the payment ignores this fact. As a result, LTCHs would not receive adequate reimbursement for these services. The commenters pointed out that there are high costs associated with patients who receive high intensity “code blue” services, including patients who expire. They recommended the establishment of a separate DRG for patient expiration cases that would have a higher case weight than the proposed very short-stay discharge DRGs.

*Response:* While we understand the commenters’ concerns, we point out that, even under the now eliminated proposed very short-stay discharge policy, payment was based on two LTC-DRGs, one for psychiatric cases and one for nonpsychiatric cases. The computation of the weights for those LTC-DRGs did include total charges for all such cases, and generally, payments would have been based on LTC-DRG weights that have balanced out the most complex admissions with the simpler admissions. Under the final rule, payments for stays of 7 days or less will likely be higher under the revised short-stay outlier policy that we are adopting as outlined in section X.C. of this preamble, and payments will be LTC-DRG specific, with rates reflecting relative medical complexity and severity of a patient condition. We believe that this revision in our short-stay policy addresses the commenters’ concerns.

With regard to the commenters’ suggestion that we create a separate DRG to compensate for the high costs associated with patients who expire, with our elimination of the proposed

very short-stay discharge policy, payments for these patients will also be paid under the short-stay outlier policy. Under the short-stay outlier policy, each case is classified into a LTC-DRG and the per diem payment adjustment is based on our calculations of relative resource use for that LTC-DRG. As we note in section X.A. of this preamble, LTC-DRG weights were derived from data simulations that were adjusted for short-stay outliers and included deaths that occurred prior to the short-stay outlier threshold for each LTC-DRG. In addition, adjusted payments for each case that fall within the short-stay outlier category, based on the least of 120 percent of the cost of the case, 120 percent of the LTC-DRG specific per diem amount multiplied by the length of stay, or the full LTC-DRG payment, should generally compensate for any increased costs associated with treating a severely sick patient who dies. Moreover, in keeping with the principles underlying prospective payments, even if a hospital did not profit, or even recover its costs for a specific case, there are other cases for which the hospital will receive payment in excess of its costs. Therefore, we do not believe that a separate DRG is necessary for patient expiration cases.

Accordingly, based on our analysis of the public comments received and our further evaluation of the proposed very short-stay policy, we have decided not to implement the very short-stay policy as proposed. We are removing the proposed § 412.527 from the regulation text and not adopting it as final. Instead, we are extending the short-stay outlier policy to all stays up to and including five-sixths of the geometric average length of stay for the specific LTC-DRG, as discussed in detail under section X.C. of this preamble.

#### *E. Special Cases: Interrupted Stay*

In the March 22, 2002 proposed rule, we proposed to define cases involving an interruption of a stay in a LTCH as those cases in which a LTCH patient is discharged to an inpatient acute care hospital, an IRF, or a SNF for treatment or services not available at the LTCH for a specified period followed by readmittance to the same LTCH (§ 412.531). For a discharge to an acute care hospital, the proposed period of interruption was within (less than or equal to) one standard deviation from the arithmetic average length of stay for the DRG assigned for the inpatient acute care hospital stay. For a discharge to an IRF, the proposed period of interruption was within one standard deviation from the arithmetic average length of stay for the CMG and the comorbidity tier

assigned for the IRF stay. For a discharge to a SNF, the proposed period of interruption was within 45 days in a SNF (that is, one standard deviation from the average length of stay for all Medicare SNF cases).

In considering an appropriate proposed interrupted stay threshold, we attempted to balance the payment incentives of both the LTCH and the acute care hospital, IRF, or SNF to which the LTCH patient is discharged before being readmitted to the LTCH. In order to assure that discharges from LTCHs are based on clinical considerations and not financial incentives, we proposed that the interrupted stay day threshold would only pay the LTCH for more than one discharge if the patient's length of stay at the acute care hospital, IRF, or SNF exceeded one standard deviation from the average length of stay for the DRG, the combination of the CMG and the comorbidity tier, or for all Medicare SNF cases, respectively. We believed this would have made it more difficult for a LTCH to find a prospectively paid acute care hospital, IRF, or SNF that would admit a LTCH patient just to allow the LTCH to receive two separate LTC-DRG payments.

We believed that the proposed interrupted stay day threshold of one standard deviation from the average length of stay for either the acute care hospital DRG, the IRF combination of the CMG and the comorbidity tier, or for all Medicare SNF cases would provide the appropriate disincentive since cases that stay significantly longer than the average length of stay are more costly than the average case. Since the SNF prospective payment system is a per diem system and not a per discharge system, we proposed to implement the same threshold for all SNF cases regardless of the resource utilization group (RUG) classification used for SNF payment. We believed the proposed interrupted stay threshold was appropriate because, in general, the average length of stay plus one standard deviation would capture the majority of the discharges that are similar to the average length of stay for the respective DRG, combination CMG and comorbidity tier, or for all Medicare SNF cases. In addition, this proposal was consistent with the basis for our payment policy for new technologies under the acute care hospital inpatient prospective payment system where the cost of a new technology must exceed one standard deviation beyond the mean standardized charge for all cases in the DRG to which the new technology is assigned in order to receive additional payments (see the September 7, 2001

inpatient hospital final rule, 66 FR 46914). Under the proposed rule, the counting of the days for the interruption of the stay would begin on the day of discharge from the LTCH and end on the day the patient is readmitted to the LTCH.

For the purposes of payment under the LTCH prospective payment system, we proposed that a case that meets the definition of an interrupted stay would be considered a single discharge from the LTCH, and, therefore, would receive only one LTC-DRG payment. Since the two LTCH stays are considered as a single case for the purposes of payment under the LTCH prospective payment system, the second discharge from the LTCH is included in the single LTC-DRG payment. The acute care hospital, the IRF, or the SNF stay would be paid in accordance with the applicable payment policies for those providers.

We also proposed to make one discharge payment under the LTCH prospective payment system for an interrupted stay case, as defined under § 412.531(a), to reduce the incentives inherent in a discharged-based prospective payment system of "shifting" patients between Medicare-covered sites of care in order to maximize Medicare payments. We believed that the proposed policy was particularly appropriate for LTCHs since, as a group, these hospitals are considerably diverse and offer a broad range of services such that where some LTCHs may be able to handle certain acute conditions, others will need to transfer their patients to acute care hospitals. (Section V.C. of this preamble contains a description of the universe of LTCHs.)

For instance, some LTCHs are equipped with operating rooms and intensive care units and are capable of performing some surgeries. However, other LTCHs are unable to provide those services and will need to transfer the beneficiary to an acute care hospital. Similarly, a patient who no longer requires hospital-level care, but is not ready to return to the community, could be transferred to a SNF. This incentive to "shift" patients between Medicare-covered sites of care in order to maximize Medicare payments is of a particular concern when the LTCH is physically located within the walls of another hospital. Often, the LTCH patient may not even be aware of a transfer to the other hospital or SNF because he or she will have only been moved down the hall or to another wing of the building. Moreover, our research reveals that hospitals-within-hospitals are the fastest growing type of LTCH. We also believe that the same incentives